



















## **Table of Contents**

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## Introduction

### **About this work**

In early 2020 as the first wave of COVID-19 swept across the globe, interest in gardening appeared to surge as well. Online searches for gardening information increased in tandem with rising case numbers (Lin et al. 2021). Gardening also received more media attention. Contemporary news stories covered first-time gardeners as well as shortages of plants and seeds in nurseries and online shops.

Our team of researchers from Australia, Germany, and the US came together because of our shared interest in better understanding why and how people were gardening during the COVID-19 pandemic. Our earlier research had already shown us how beneficial gardening could be for diverse communities - for physical and mental health, food production, social connection, and more. However, we wanted to know if and how gardens were able to deliver those benefits in an especially stressful time, during the global COVID-19 pandemic.

We consider gardens to be a range of places where people cultivate and tend any of a variety of plants, flowers, fruits, or vegetables. Gardens vary considerably in size (ranging from a single container to an entire yard or more), can occur on public or private land, and can be managed individually or collectively.

Specifically, we wanted to know:

- What significance does gardening have in the lives of gardeners as they cope with pandemic risks and challenges?
- How are gardeners changing the use and management of their gardens because of the pandemic?
- What barriers, needs, and sources of support do gardeners identify during the pandemic?

To answer these questions we distributed an online survey to gardeners using social media, newsletters, and targeted emails to gardener groups in the researchers' home countries. Responses were collected between June and August 2020. We received 3,743 responses, primarily from Australia, Germany, and the US. Because of our distribution strategy, our results are more representative of certain garden networks than of all gardeners in these three countries. Similarly, the choice to use an online survey means our respondents tend to belong to populations with reliable internet access, comfort with online surveys, and English or German fluency.

### What we found

- Respondents were typically college-educated females in their mid-fifties.
- There were five main changes to gardening practices during COVID-19:
  - People had more time to focus on gardening;
  - Gardens became a 'safe place' to spend time outdoors, a haven in which to grow one's own food and connect with nature;
  - Many people valued gardens as a social space, where they could strengthen relationships with family and friends, as well as connect with other gardeners and neighbors;

- Some people became more innovative with their gardening approaches in an effort to positively impact their community and planet;
- However, for many, lack of access to seeds, space, and other resources prevented them from gardening to the extent desired.
- Over half of all respondents felt isolated, anxious, and/or depressed during the early periods of the pandemic. Moreover, 81% of respondents had concerns about food access, particularly about exposure to the virus while obtaining food as well as about the selection and quantities of food at the store.
- One of the main benefits that came from gardening during the early months of the COVID-19 pandemic was the ways in which gardens functioned as therapeutic spaces. Not only did gardeners describe a sense of control and security that came from food production, but they also expressed heightened experiences of joy, beauty and freedom in garden spaces. During this time people felt greater attunement to, and connectedness with, nature. (Marsh et al., 2021).

### What next?

Based on these findings, we concluded that during this period of sudden and extreme lifestyle changes, gardens played a positive role in gardeners' mental and physical health. Gardens also benefited a wider community as people shared knowledge; seeds, plants and food; and time and work in the garden. As we learned from the stories of gardeners who took part in this survey, some also saw their gardens as part of a broader set of strategies to create more resilient regional food systems, adapt to a changing climate, and protect biodiversity.

Our results point to the opportunity that is available for governments, non-governmental organizations, community groups, and businesses to improve community health and well-being by providing green spaces and facilitating easy access to gardens and gardening. Governments at all scales can develop policies that make it easier for communities to garden by providing space, resources and support, with a focus on addressing inequities in access to green space and healthy food. Gardens can also be encouraged as a resilience strategy to help people cope with and recover from a host of social and natural disasters. However, for gardens to successfully function as sites of resilience, investments in their social and physical infrastructure need to be made before disaster strikes.

### **Short regional reports**

The pages that follow show results for specific states and regions in Australia, Germany, and the US. Despite significant differences related to geography and climate, as well as varying national pandemic responses, gardeners' descriptions of this time were remarkably similar. During the personal, social, and economic upheaval engendered by COVID-19, gardeners found solace in their gardens, where they could escape the stress of the pandemic, connect to the natural world, and often, find ways to safely interact with others. Importantly, gardens were not just sites for respite. Gardeners also described how gardening was a way they could take action to help themselves and others in the face of circumstances that otherwise felt largely outside of their control.

We hope you enjoy taking a closer look into the following summaries.

### **Acknowledgements**

All the gardeners who participated in our surveys around the world are kindly acknowledged for sharing their experiences and expertise. In addition, we would like to thank the numerous gardening organizations and groups that assisted us in distributing the online survey and helped us gather such a broad response. These groups include:

University of California Master Gardener Program

The Royal Horticulture Society of UK

The Public Health Association Australia Western

Australian Branch ACSDistanceEducation

Geographies of Health & Wellbeing Research Group

Royal Botanic Gardens Sydney

Kevin Heinz Grow The Garden Clinic

ABC Gardening Australia Magazine Sophie Thomson (ABC presenter)

Gardening Australia

Community Greening NSW

Cooperative Gardens Commission Therapeutic Horticulture Australia

Therapeutic landscape collective Tasmania

Transitions Town Marobyrnong

'Reverge' - Community Verge Gardens

Australian Garden Council Vic Park Urban Foresters

SABGR Lower Eyre Peninsula

Namatjira Dreaming Community

The Forge Garden La Mesa Verde

Wingham Nursery and Florest Enviro & Sustainable News (WA)

Cornell Cooperative Extension Tompkins County Turf Growers Association Western Australia

The Community Plate

Australian Institute of Horticulture Inc.

Rotary Community Garden and Food Forest of Carol

Springs

Community gardens in California

P-Patch Community Gardening Program

Crops Swap - Boronia, The Basin, Ferntree Gully and

surrounds

South Florida Edible Gardening and Sustainable Living

Northeast Permaculture Network

German Ecological Society

Deutsche Gesellschaft für Gartenkunst und

Landschaftskultur DGGL e. V.

### For more in-depth study results, please see these papers:

- Marsh, P., Diekmann, L. O., Egerer, M., Lin, B., Ossola, A., & Kingsley, J. (2021). Where birds felt louder: The garden as a refuge during COVID-19. Wellbeing, Space and Society, 2, 100055.
- Lin, B. B., Egerer, M. H., Kingsley, J., Marsh, P., Diekmann, L., & Ossola, A. (2021). COVID-19 gardening could herald a greener, healthier future. Frontiers in Ecology and the Environment, 19(9), 491-493.
- Egerer, M., Lin, B., Kingsley, J., Marsh, P., Diekmann, L., & Ossola, A. (2022). Gardening can relieve human stress and boost nature connection during the COVID-19 pandemic. Urban Forestry & Urban Greening, 127483.
- Kingsley, K, Diekmann, L, Egerer, M., Lin, B, Ossola, A, and Marsh, P. "My garden has become our garden": Experiences of gardening during the COVID-19 pandemic. Health & Place (forthcoming)

### **About the authors**



Dr. Alessandro Ossola is an Assistant Professor in Urban Plant Science at the University of California Davis, US, and Honorary Research Fellow at the University of Melbourne and Macquarie University, Sydney, Australia. Alessandro's research and teaching encompass several topics including ecology, climate change, forestry, water management, food production, urban planning and design.



Dr. Brenda Lin is an interdisciplinary ecologist leading the Adaptive and Liveable Cities Team at the Commonwealth Science and Industrial Research Organisation (CSIRO), the science arm of the Australian Government. Her primary research is focused on global environmental drivers of landscape change and the resulting effects on ecosystem services, especially climate regulation services and impacts to human health and well-being. One area of focus has been in urban ecological systems where she examines the relationships between vegetation cover, environmental services, and human health.



Dr. Jonathan Kingsley is a Senior Lecturer in Health Promotion (Swinburne University of Technology). Jonathan has dedicated the better part of the past decade working in Aboriginal Community Controlled Health Organisations, government bodies, academic institutes and NGO's across Australia in the public health and community development field. Jonathan sees our natural environment as central to health and having the capacity to bridge health inequalities (the basis of his Honours, Masters, PhD and previous Visiting Academic position at Cambridge University).



Dr. Lucy Diekmann is an Urban Agriculture and Food Systems Advisor with University of California Cooperative Extension. She works with community-based organizations, local government partners, food system networks, and urban farmers and gardeners on research and extension projects to create more equitable and resilient urban food systems.



Dr. Monika Egerer is an assistant professor at the Technical University of Munich in the School of Life Sciences. Her research investigates relationships between biodiversity conservation, ecosystem service provision, and human wellbeing in urban ecosystems, with a focus on urban agricultural systems. Monika's work aims to bridge theory and practice to create productive systems in cities that offer food, habitat and community.



Dr. Pauline Marsh is a social researcher with the Centre for Rural Health, at the University of Tasmania, Australia. Her research explores how being in nature improves our quality of life and she is particularly interested in the therapeutic benefits of gardens and the outdoors for people with cognitive, emotional and physical health challenges. She utilises methods of participatory action research, story-gathering and filmmaking and publishes in a range of academic journals. She considers one of her greatest achievements to be co-founding the DIGnity Supported Community Gardening project.



Summer Cortez is a member of the Community Development Graduate Group at UC Davis. Her research utilizes a Food Justice framework to investigate grassroots and public policy opportunities to improve food system resiliency and access within California communities.

### **GARDENING DURING COVID-19:**

## Greater Melbourne Metropolitan Area, Australia



### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Australia, many respondents were recruited through digital networks such as Facebook and LinkedIn as well through 'Gardening Australia.' The information summarized here reflects the 253 survey responses received from gardeners in the greater Melbourne area of Victoria in summer 2020.

### Who are the gardeners?

253 gardeners from Victoria responded to this survey. Responses were clustered in the greater Melbourne area, as shown in the map below. Most respondents were experienced gardeners; 65% had gardened for more than 10 years, while just 3% were gardening for the first time. In general, gardeners were female (82%) and highly educated: 77% had a bachelor's degree or higher. Gardeners ranged in age from 22 to 86, with an average age of 51.



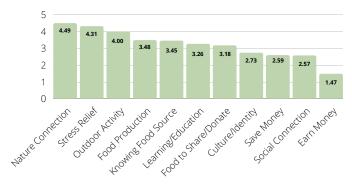
## Australian highlights

- The pandemic provided many people with more time to dedicate to their gardens and fueled a desire to increase garden productivity.
- Early in the pandemic, many respondents reported feeling isolated, anxious, or depressed.
   Under these circumstances, gardens were valued for outdoor activity, stress relief, and connection to nature.
- During the first wave of the pandemic, gardeners were concerned about exposure to COVID-19 while grocery shopping and shortages and limited selection at the store. In light of supply chain disruptions, gardens took on newfound importance as tools for greater self-reliance.
- Community connections and support were a recurring theme.
   Gardeners reported both receiving and giving help in the garden and growing for others in their community. Gardens also were a focal point for interacting with family, friends, and neighbors.

Most respondents reported gardening at home, in their yard (93%) and/or on a balcony (8%). Their gardens were frequently the size of one or two raised beds (26%) or took up a large section of their yard (54%). Growing vegetables (83%), herbs (88%), fruits (72%), and ornamentals (79%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-third answered 25%, and one-tenth answered 50%.

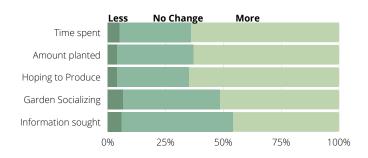
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In the Melbourne area, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 30% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



## **COVID-19 changes**

The biggest change for most gardeners was their desire to increase the amount of food produced in their gardens. More than half of gardeners also reported planting more and having more time to garden as a result of lockdown restrictions.



"My garden has made me feel empowered in the face of uncertainty."

HOME GARDENER, FEMALE, AGE 68, MELBOURNE, VIC

"COVID-19 has raised awareness of the vulnerability of our supply chains and the benefits of being somewhat self-sufficient in terms of food."

HOME GARDENER, FEMALE, AGE 35, MOONEE PONDS, VIC

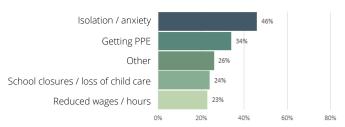
"For me, growing fresh food locally has always been extremely important and gardens carry a high value to any community to maintain food sovereignty and stay resilient."

COMMUNITY GARDENER, FEMALE, AGE 29, PRESTON, VIC

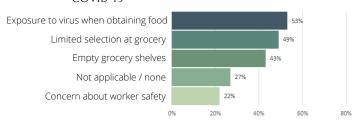
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (46%) and getting protective gear (34%). During the first wave of the pandemic, many gardeners also had concerns about the safety of obtaining food at the store. Generally, gardeners in the study were not experiencing food insecurity: 6% reported not having enough food at home or an inability to pay for food. 10% of respondents did report less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



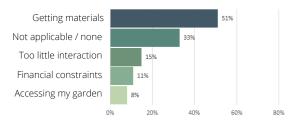
### Most frequently cited barriers to food access during COVID-19



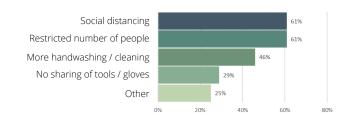
### Garden challenges

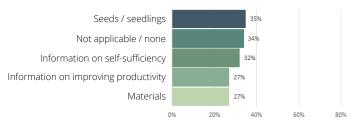
The biggest challenge to gardening in the pandemic was getting supplies like seeds and plants. Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a third of respondents were not experiencing any challenges gardening because of the pandemic.

## Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules























### **GARDENING DURING COVID-19:**

Coastal New South Wales & ACT, Australia

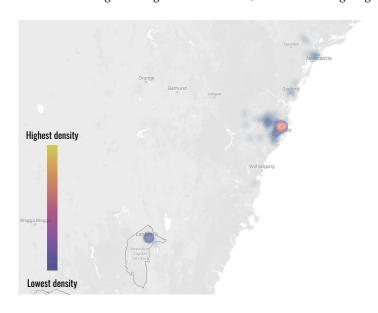


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Australia, many respondents were recruited through digital networks such as Facebook and LinkedIn as well through 'Gardening Australia.' The information summarized here reflects the 177 survey responses received from gardeners in New South Wales and the Australian Capital Territory (ACT) in summer 2020.

### Who are the gardeners?

177 gardeners from across New South Wales and ACT responded to this survey. Responses were largely clustered in the Sydney metropolitan area, as shown in the map below. Many respondents were experienced gardeners; 41% had gardened for more than 10 years, while just 12% had been gardening for five years or less. In general, gardeners were female (86%) and highly educated: 72% had a bachelor's degree or higher. Gardeners ranged in age from 29 to 93, with an average age of 53.



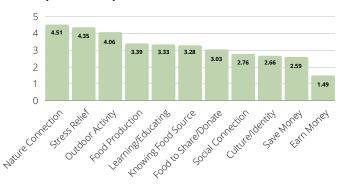
## Australian highlights

- The pandemic provided many people with more time to dedicate to their gardens and fueled a desire to increase garden productivity.
- Early in the pandemic, many respondents reported feeling isolated, anxious, or depressed.
   Under these circumstances, gardens were valued for outdoor activity, stress relief, and connection to nature.
- During the first wave of the pandemic, gardeners were concerned about exposure to COVID-19 while grocery shopping and shortages and limited selection at the store. In light of supply chain disruptions, gardens took on newfound importance as tools for greater self-reliance.
- Community connections and support were a recurring theme.
   Gardeners reported both receiving and giving help in the garden and growing for others in their community. Gardens also were a focal point for interacting with family, friends, and neighbors.

Most respondents reported gardening at home, in their yard (90%) and/or on a balcony (11%). Their gardens were frequently the size of one or two raised beds (24%) or took up a large section of their yard (51%). Also common were gardens significantly larger than an average residential plot (19%). Growing vegetables (80%), herbs (84%), fruits (67%), and ornamentals (76%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, over half answered less than 10%, one-third answered 25%, and one-tenth answered 50%.

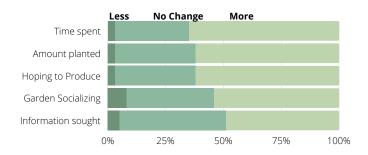
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In New South Wales and ACT, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 32% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were also planting more in 2020, hoping to harvest more, and doing more socializing through gardening.



"I've been very grateful to have a garden to tend and enjoy, especially during lockdown when there were so few permissible reasons to leave home."

HOME GARDENER, FEMALE, AGE 58, SYDNEY, NSW

"I felt comforted at the beginning of COVID knowing I was a member of the community garden because I thought shops might stop selling some food...and I knew I'd still have some fresh food."

COMMUNITY GARDENER, FEMALE, AGE 43, SYDNEY, NSW

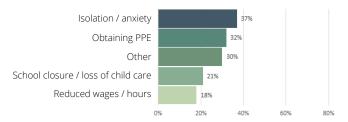
"I don't think COVID changed my values, just the priority of my garden in my life. The feeling of insecurity when the supply chains looked like they could be interrupted was significant. You just have a moment of 'how long could we feed ourselves?' and suddenly just want to go mad with the seeds just to have a bit of power and autonomy."

HOME GARDENER, FEMALE, AGE 37, SYDNEY, NSW

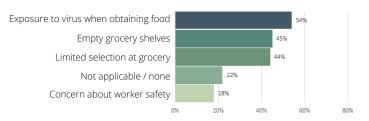
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (37%) and getting protective gear (32%). During the first wave of the pandemic, many gardeners also had concerns about the safety of obtaining food at the store. Generally, gardeners in the study were not experiencing food insecurity: 3% reported not having enough food at home or an inability to pay for food. 10% of respondents did report less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



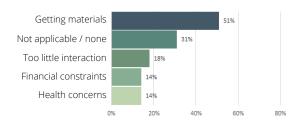
### Most frequently cited barriers to food access during COVID-19



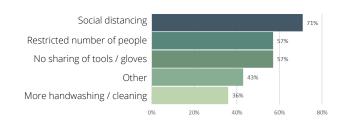
### Garden challenges

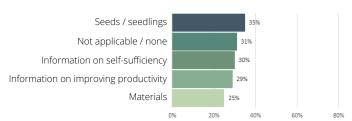
The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a third of respondents were not experiencing any challenges gardening because of the pandemic.

### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules























### **GARDENING DURING COVID-19:**

## Southeast Queensland, Australia

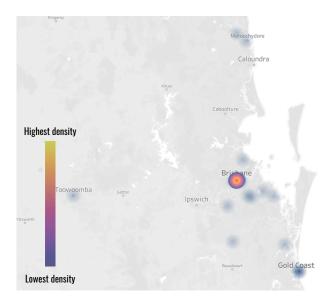


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Australia, many respondents were recruited through digital networks such as Facebook and LinkedIn as well through 'Gardening Australia.' The information summarized here reflects the 73 survey responses received from gardeners in Southeast Queensland in summer 2020.

### Who are the gardeners?

73 gardeners from across Queensland responded to this survey. Responses were largely clustered in the greater Brisbane area, as shown in the map below. Most respondents were experienced gardeners; 60% had gardened for more than 10 years, while just 7% were gardening for the first time. In general, gardeners were female (85%) and highly educated: 75% had a bachelor's degree or higher. Gardeners ranged in age from 21 to 80, with an average age of 49.



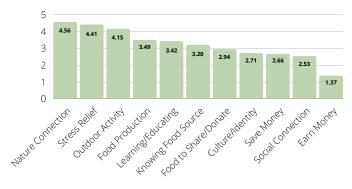
## Australian highlights

- The pandemic provided many people with more time to dedicate to their gardens and fueled a desire to increase garden productivity.
- Early in the pandemic, many respondents reported feeling isolated, anxious, or depressed.
   Under these circumstances, gardens were valued for outdoor activity, stress relief, and connection to nature.
- During the first wave of the pandemic, gardeners were concerned about exposure to COVID-19 while grocery shopping and shortages and limited selection at the store. In light of supply chain disruptions, gardens took on newfound importance as tools for greater self-reliance.
- Community connections and support were a recurring theme.
   Gardeners reported both receiving and giving help in the garden and growing for others in their community. Gardens also were a focal point for interacting with family, friends, and neighbors.

Most respondents reported gardening at home, in their yard (95%) and/or on a balcony (7%). Their gardens were frequently the size of one or two raised beds (25%) or took up a large section of their yard (56%). Growing vegetables (54%), herbs (58%), fruits (47%), and ornamentals (48%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-third answered 25%, and one-tenth answered 50%.

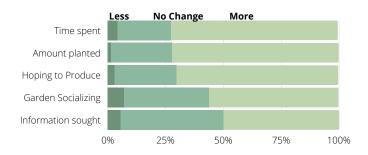
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Queensland, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 37% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were also planting more in 2020, hoping to harvest more, and doing more socializing through gardening.



"Although we've always spent a lot of time in our garden/backyard, we valued it so much more during COVID-19. As our daughters say, 'we've got our very own playground in our backyard."

HOME GARDENER, FEMALE, AGE 45, WEST END, QLD

"COVID-19 made me realize that I wanted to grow a lot more produce to provide for my family and broader local community."

HOME GARDENER, FEMALE, AGE 64, SOUTH BRISBANE, QLD

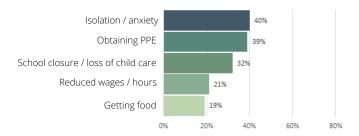
"Gardening gives the community more chances to share experiences and values."

HOME GARDENER, FEMALE, AGE 80, SOUTH BRISBANE, QLD

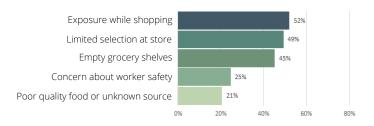
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (40%) and getting protective gear (39%). During the first wave of the pandemic, many gardeners also had concerns about the safety of obtaining food at the store. Generally, gardeners in the study were not experiencing food insecurity: 0% reported not having enough food at home or an inability to pay for food. 5% of respondents did report less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



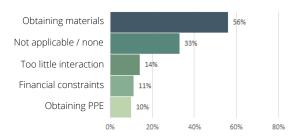
### Most frequently cited barriers to food access during COVID-19

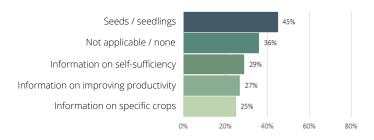


### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a third of respondents were not experiencing any challenges gardening because of the pandemic.

### Most frequently cited barriers to gardening during COVID-19























### **GARDENING DURING COVID-19:**

### Tasmania, Australia

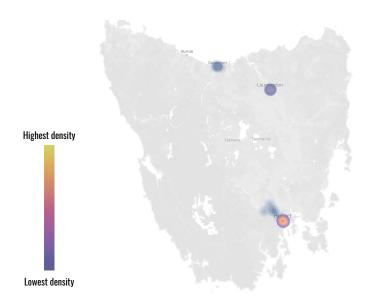


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Australia, many respondents were recruited through digital networks such as Facebook and LinkedIn as well through 'Gardening Australia.' The information summarized here reflects the 54 survey responses received from gardeners in Tasmania in summer 2020.

### Who are the gardeners?

54 gardeners from across Tasmania responded to this survey. Responses were largely clustered in Hobart, Launceston, and Devonport, as shown in the map below. Most respondents were experienced gardeners; 72% had gardened for more than 10 years, while just 7% were gardening for the first time. In general, gardeners were female (76%) and highly educated: 81% had a bachelor's degree or higher. Gardeners ranged in age from 28 to 79, with an average age of 55.



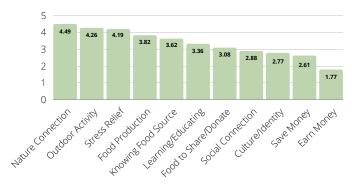
## Australian highlights

- The pandemic provided many people with more time to dedicate to their gardens and fueled a desire to increase garden productivity.
- Early in the pandemic, many respondents reported feeling isolated, anxious, or depressed.
   Under these circumstances, gardens were valued for outdoor activity, stress relief, and connection to nature.
- During the first wave of the pandemic, gardeners were concerned about exposure to COVID-19 while grocery shopping and shortages and limited selection at the store. In light of supply chain disruptions, gardens took on newfound importance as tools for greater self-reliance.
- Community connections and support were a recurring theme.
   Gardeners reported both receiving and giving help in the garden and growing for others in their community. Gardens also were a focal point for interacting with family, friends, and neighbors.

Most respondents reported gardening at home, in their yard (93%) and/or on a balcony (9%). Their gardens were frequently the size of one or two raised beds (19%) or took up a large section of their yard (64%). Growing vegetables (94%), herbs (89%), fruits (74%), and ornamentals (70%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, eighty-four percent of respondents answered 25% or less. Eleven percent answered 50%.

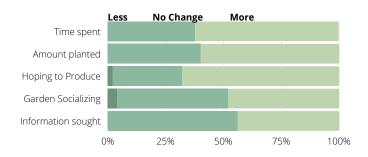
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Tasmania, gardeners most valued 1) connecting to nature, 2) outdoor physical activity, 3) relaxing and relieving stress, and 4) food production and food quality. About 48% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



## **COVID-19 changes**

The biggest change for most gardeners was their desire to increase the amount of food produced in their gardens. More than half of gardeners also reported planting more and having more time to garden as a result of lockdown restrictions.



"COVID-19 has made me realize that I could grow much more edible plants to supplement what I buy from markets / shops."

HOME GARDENER, FEMALE, AGE 53, LAUNCESTON, TAS

"Lately my garden has been a sanity saver because I don't need to go to the grocery store as much."

HOME GARDENER, FEMALE, AGE 58, HOBART, TAS

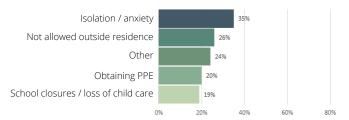
"The reality of food insecurity has become more apparent and as such it became more important to me to be self-reliant. I also realized how important gardening was for my well-being. Being able to spend more time in the garden made me feel happier overall."

HOME GARDENER, MALE, AGE 34, MOLESWORTH, TAS

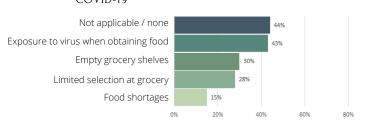
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (35%) and not being allowed outside of one's residence (26%). During the first wave of the pandemic, many gardeners also had concerns about the safety of obtaining food at the store. Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or inability to pay for food. 2% reported having less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



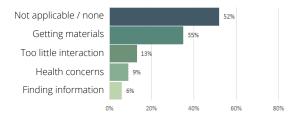
### Most frequently cited barriers to food access during COVID-19



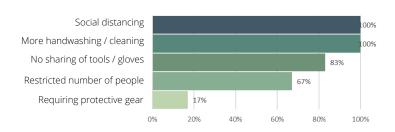
### Garden challenges

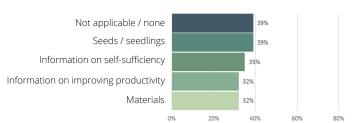
The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a half of respondents were not experiencing any challenges gardening because of the pandemic.

### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules





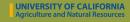


















## GARDENING DURING COVID-19: Berlin, Germany

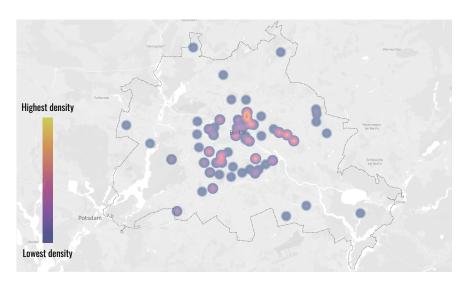


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Germany, many respondents were recruited through newsletters of the German Ecological Society, The German Society for Garden Art and Landscape Culture eV, and the Gardening Portal from the Berlin Senate Department for the Environment, Transport and Climate Protection. The information summarized here reflects the 120 survey responses received from gardeners in Berlin in summer 2020.

### Who are the gardeners?

120 gardeners from Berlin responded to this survey. Responses were largely clustered in central Berlin, as shown in the map below. Many respondents were experienced gardeners; 40% had gardened for more than 10 years, while just 8% were gardening for the first time. In general, gardeners were female (71%) and highly educated: 85% had a bachelor's degree or higher. Gardeners ranged in age from 19 to 74, with an average age of 45.



## German highlights

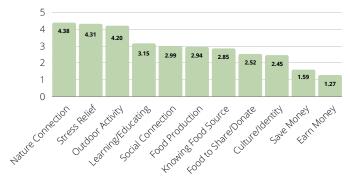
- Early in the pandemic, some of the common stressors German gardeners experienced included difficulty obtaining protective gear, school closures, and loss of child care. Many also reported feeling isolated, anxious, or depressed.
- In this context, outdoor garden spaces were valued for helping to relieve stress and enabling gardeners to connect to nature and other community members safely.
- The biggest changes in the garden were that gardeners had more time to spend gardening and many were planting more than in previous years. With more time, gardeners reported being able to take better care of their gardens and experimenting with new techniques and plants.
- About half of respondents
   reported experiencing no
   barriers to gardening during the
   pandemic. For the other half,
   obtaining supplies, such as seeds,
   was the most significant
   gardening challenge during the
   pandemic.



Many respondents reported gardening at home, in their yard (43%) and/or on a balcony (42%). Forty-one percent gardened at a community garden. Their gardens varied in size, but tended to be large plots of land (60%). Growing vegetables (77%), herbs (83%), fruits (62%), and ornamentals (73%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, many (73%) answered less than 10%. One-fifth answered 25%.

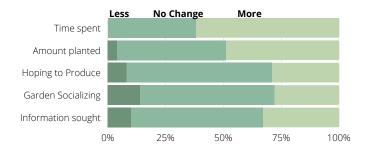
## The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Berlin, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) outdoor learning/educating.



## **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. About half of gardeners were also planting more in 2020. However, the majority of gardeners expressed no change in the quantity of produce they were hoping to harvest, the amount of garden socializing they did, and the amount of information about gardening that they sought.



"Since I spend more time at home than usual, I also have more time for gardening and enjoy this. I've noticed the good this does for me. Therefore, the value of gardening has increased for me."

HOME GARDENER, FEMALE, AGE 45, BERLIN

"COVID-19 reinforced my thoughts on the value of a community garden: we need these spaces to pause and connect with nature."

COMMUNITY GARDENER, FEMALE, AGE 62, BERLIN

"Questions of social justice, generational questions and questions about what is essential in our lives become clearer and more obvious through COVID.

General social tendencies become obvious in my opinion. That's why I think the garden is a great place to share and be together, especially outside where it's relatively safe to do so with the pandemic."

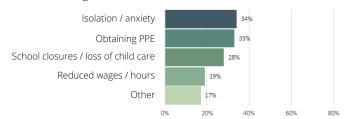
HOME GARDENER, FEMALE, AGE 27, BERLIN

BERLIN, GERMANY PAGE 20

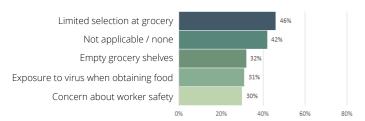
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (34%) and getting protective gear (33%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 4% reported not having enough food at home or an inability to pay for food. 13% reported having less fresh food at home since the start of the pandemic.

## Most frequently cited personal difficulties faced during Covid-19



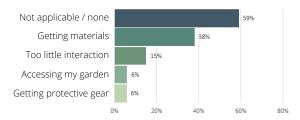
### Most frequently cited barriers to food access during COVID-19



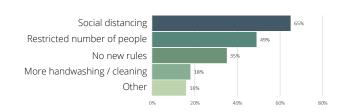
### Garden challenges

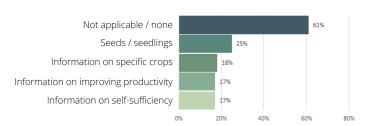
Over half of respondents were not experiencing any challenges in gardening because of the pandemic. For others, the biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Information about specific crops, production, and self-sufficiency were the most requested forms of support aside from supplies.

### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules























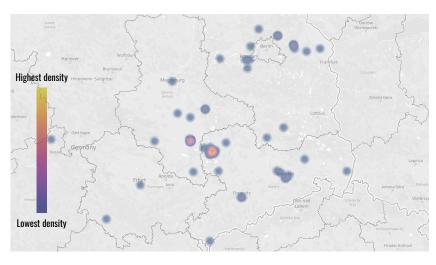
## GARDENING DURING COVID-19: East Germany



To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Germany, many respondents were recruited through newsletters of the German Ecological Society, The German Society for Garden Art and Landscape Culture eV, and the Gardening Portal from the Berlin Senate Department for the Environment, Transport and Climate Protection. The information summarized here reflects the 69 survey responses received from gardeners in Brandenburg, Saxony-Anhalt, Saxony, and Thuringia in summer 2020.

### Who are the gardeners?

69 gardeners from across East Germany responded to this survey. Responses were scattered across the Eastern states, with the highest concentration of responses occurring in Leipzig and Halle, as shown in the map below. Many respondents were experienced gardeners; 52% had gardened for more than 10 years, while just 3% were gardening for the first time. In general, gardeners were female (72%) and highly educated: 84% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 71, with an average age of 47.



## German highlights

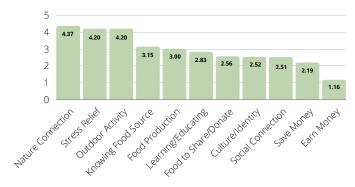
- Early in the pandemic, some of the common stressors German gardeners experienced included difficulty obtaining protective gear, school closures, and loss of child care. Many also reported feeling isolated, anxious, or depressed.
- In this context, outdoor garden spaces were valued for helping to relieve stress and enabling gardeners to connect to nature and other community members safely.
- The biggest changes in the garden were that gardeners had more time to spend gardening and many were planting more than in previous years. With more time, gardeners reported being able to take better care of their gardens and experimenting with new techniques and plants.
- About half of respondents
   reported experiencing no
   barriers to gardening during the
   pandemic. For the other half,
   obtaining supplies, such as seeds,
   was the most significant
   gardening challenge during the
   pandemic.



Many respondents reported gardening at home, in their yard (64%) and/or on a balcony (29%). Thirty-three percent gardened at a community garden. Their gardens varied in size, but tended to be large plots of land (70%). Growing vegetables (81%), herbs (91%), fruits (80%), and ornamentals (84%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-third answered 25%, and one-fifth answered 50%.

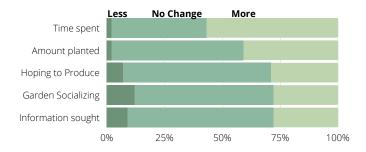
## The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In East Germany, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) knowing one's food source.



## **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. About half of gardeners were also planting more in 2020. However, the majority of gardeners reported no change in the quantity of produce they were hoping to harvest, the amount of garden socializing they did, and the amount of information about gardening that they sought.



"I miss physical activity, leisure time and fresh air in my everyday life. I have now rediscovered this and would like to integrate it into my professional life in the future, or work less."

HOME GARDENER, FEMALE, AGE 52, HALLE, ST

"Gardening has always been important to me (especially the aspect of conservation and biodiversity in the city)."

COMMUNITY GARDENER, FEMALE, AGE 60, LEIPZIG, SN

"I was very happy to be able to go outside 'safely' and also finally had time to take care of my large roof terrace and balcony. Since I put more work into the garden and thus have a stronger 'connection' to my plants, the garden has become even more valuable to me."

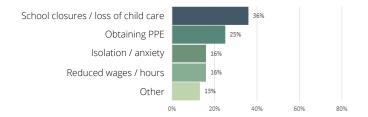
HOME GARDENER, FEMALE, AGE 41, MÜNCHEBERG, BB

EAST GERMANY PAGE 23

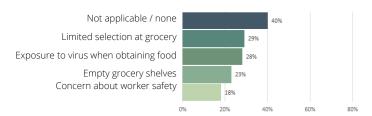
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were associated with school closures and loss of child care (36%) and getting protective gear (25%). Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or an inability to pay for food. 15% reported having less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



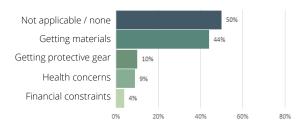
### Most frequently cited barriers to food access during COVID-19



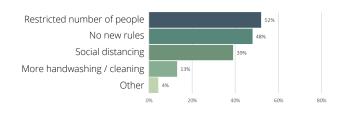
### Garden challenges

Half of respondents were not experiencing any challenges in gardening because of the pandemic. For others, the biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Additional space for gardening and information about specific crops and improving self sufficiency were the most requested forms of support aside from supplies.

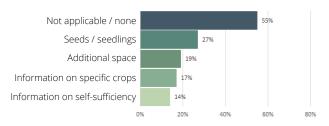
### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules



### Most requested support for gardening during COVID-19



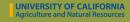
















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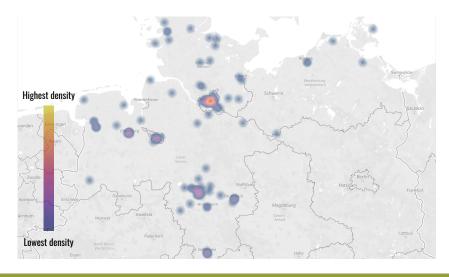


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Germany, many respondents were recruited through newsletters of the German Ecological Society, The German Society for Garden Art and Landscape Culture eV, and the Gardening Portal from the Berlin Senate Department for the Environment, Transport and Climate Protection. The information summarized here reflects the 129 survey responses received from gardeners in Lower Saxony, Bremen, Hamburg, Schleswig-Holstein, and Mecklenburg-Vorpommern in summer 2020.

## Who are the gardeners?

129 gardeners from across Northern Germany responded to this survey. Responses were scattered across the Northern states, with the highest concentration of responses occurring in Hamburg, as shown in the map below. Many respondents were experienced gardeners; 59% had gardened for more than 10 years, while just 4% were gardening for the first time. In general, gardeners were female (72%) and highly educated: 78% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 84, with an average age of 52.



## German highlights

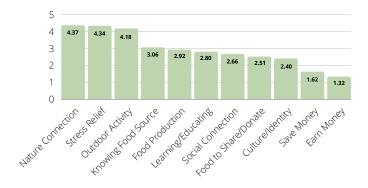
- Early in the pandemic, some of the common stressors German gardeners experienced included difficulty obtaining protective gear, school closures, and loss of child care. Many also reported feeling isolated, anxious, or depressed.
- In this context, outdoor garden spaces were valued for helping to relieve stress and enabling gardeners to connect to nature and other community members safely.
- The biggest changes in the garden were that gardeners had more time to spend gardening and many were planting more than in previous years. With more time, gardeners reported being able to take better care of their gardens and experimenting with new techniques and plants.
- About half of respondents
   reported experiencing no
   barriers to gardening during the
   pandemic. For the other half,
   obtaining supplies, such as seeds,
   was the most significant
   gardening challenge during the
   pandemic.



Many respondents reported gardening at home, in their yard (67%) and/or on a balcony (16%). Twenty-seven percent gardened at a community garden. Their gardens varied in size, but tended to be large plots of land (76%). Growing vegetables (73%), herbs (84%), fruits (76%), and ornamentals (76%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, over half (59%) answered less than 10%. One-quarter answered 25%.

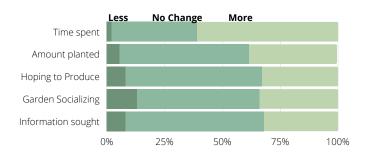
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Northern Germany, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) knowing the source of their produce.



## **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. However, the majority of gardeners reported no change in the amount they planted, quantity of produce they were hoping to harvest, the amount of garden socializing they did, and the amount of information about gardening that they sought.



"A friend has emerged out of the requirements of garden care: Creativity is encouraged, exercise in the fresh air, a sense of achievement is enjoyed, the safe meeting with friends, family and neighbors in the smallest circles was possible in the garden."

HOME GARDENER, FEMALE, AGE 66, HEMMINGEN, NI

"I have once again become more aware of the importance of environmentally friendly and regionally produced food."

HOME GARDENER, FEMALE, AGE 46, HAMBURG, HH

"Gardens and green spaces are very important in cities, contribute to recreation and relaxation and should be promoted more."

HOME GARDENER, FEMALE, AGE 30, HUSUM, SH

NORTH GERMANY PAGE 26

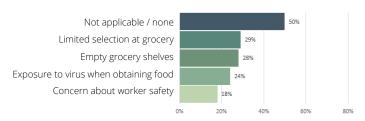
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenge was obtaining protective gear (23%) and reduced wages or work hours (20%). Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or an inability to pay for food. 9% reported having less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



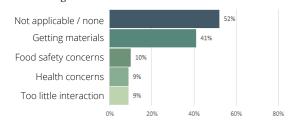
### Most frequently cited barriers to food access during COVID-19



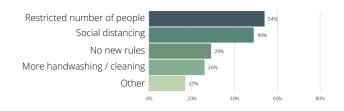
### Garden challenges

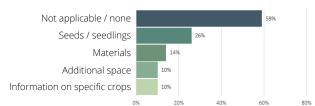
Over half of respondents were not experiencing any challenges in gardening because of the pandemic. For others, the biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Additional space for gardening and crop specific information were the most requested forms of support aside from supplies.

### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules





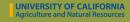


















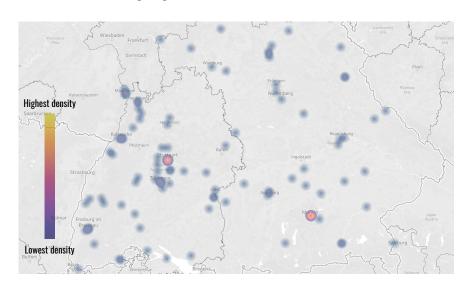


### **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Germany, many respondents were recruited through newsletters of the German Ecological Society, The German Society for Garden Art and Landscape Culture eV, and the Gardening Portal from the Berlin Senate Department for the Environment, Transport and Climate Protection. The information summarized here reflects the 139 survey responses received from gardeners in Bavaria and Baden-Württemberg in summer 2020.

### Who are the gardeners?

139 gardeners from Southern Germany responded to this survey. Responses were largely clustered in Stuttgart and Munich, as shown in the map below. Many respondents were experienced gardeners; 63% had gardened for more than 10 years, while just 4% were gardening for the first time. In general, gardeners were female (72%) and highly educated: 79% had a bachelor's degree or higher. Gardeners ranged in age from 21 to 79, with an average age of 50.



## German highlights

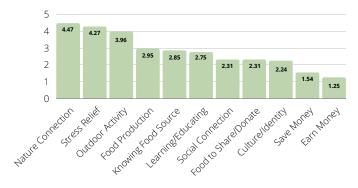
- Early in the pandemic, some of the common stressors German gardeners experienced included difficulty obtaining protective gear, school closures, and loss of child care. Many also reported feeling isolated, anxious, or depressed.
- In this context, outdoor garden spaces were valued for helping to relieve stress and enabling gardeners to connect to nature and other community members safely.
- The biggest changes in the garden were that gardeners had more time to spend gardening and many were planting more than in previous years. With more time, gardeners reported being able to take better care of their gardens and experimenting with new techniques and plants.
- About half of respondents
   reported experiencing no
   barriers to gardening during the
   pandemic. For the other half,
   obtaining supplies, such as seeds,
   was the most significant
   gardening challenge during the
   pandemic.



Many respondents reported gardening at home, in their yard (73%) and/or on a balcony (23%). Ten percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (24%) or took up a large section of their yard (45%). Growing vegetables (73%), herbs (86%), fruits (58%), and ornamentals (71%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, many (65%) answered less than 10%. One-fifth answered 25%.

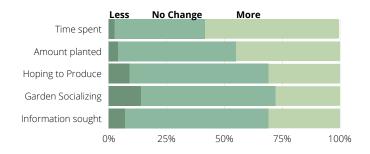
## The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In South Germany, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and quality.



## **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. About half of gardeners were also planting more in 2020. However, the majority of gardeners expressed no change in the quantity of produce they were hoping to harvest, the amount of garden socializing they did, and the amount of information about gardening that they sought.



"Yes, I've always loved my garden, but now I'm even more aware of what a luxury it is to have one."

HOME GARDENER, FEMALE, AGE 36, MUNICH, BY

"I have always thought and acted this way. The only thing that has changed is that I am asked more about gardening and pass on more knowledge."

COMMUNITY GARDENER, FEMALE, AGE 55, ÖSTRINGEN, BW

"I have found the garden everyday to be a privileged gift."

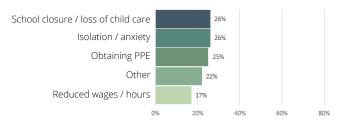
HOME GARDENER, FEMALE, AGE 45, FREIBURG, BW

SOUTH GERMANY PAGE 29

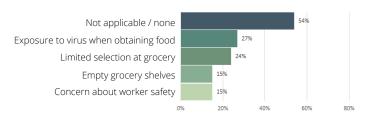
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were associated with school closures and loss of child care (26%) and feeling isolated, anxious, or depressed (34%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 0% reported not having enough food at home or an inability to pay for food. 6% reported having less fresh food at home since the start of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



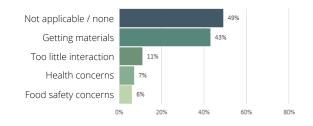
### Most frequently cited barriers to food access during COVID-19



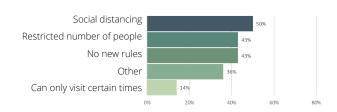
### Garden challenges

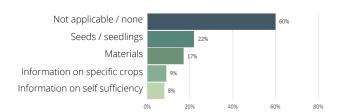
Half of respondents were not experiencing any challenges in gardening because of the pandemic. For others, the biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Information about specific crops and self-sufficiency were the most requested forms of support aside from supplies.

## Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules





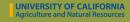


















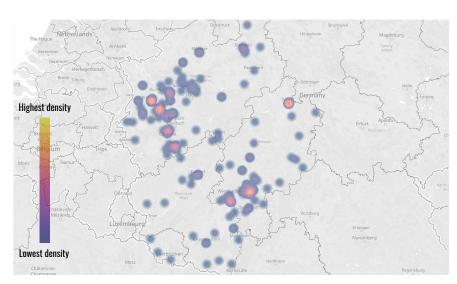
# GARDENING DURING COVID-19: West Germany



To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In Germany, many respondents were recruited through newsletters of the German Ecological Society, The German Society for Garden Art and Landscape Culture eV, and the Gardening Portal from the Berlin Senate Department for the Environment, Transport and Climate Protection. The information summarized here reflects the 213 survey responses received from gardeners in Saarland, Rhineland-Palatinate, Hesse, and North Rhine Westphalia in summer 2020.

### Who are the gardeners?

213 gardeners from Western Germany responded to this survey. Responses were scattered widely across the Western states, as shown in the map below. Many respondents were experienced gardeners; 63% had gardened for more than 10 years, while just 4% were gardening for the first time. In general, gardeners were female (71%) and highly educated: 81% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 80, with an average age of 51.



## German highlights

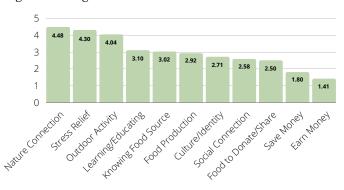
- Early in the pandemic, some of the common stressors German gardeners experienced included difficulty obtaining protective gear, school closures, and loss of child care. Many also reported feeling isolated, anxious, or depressed.
- In this context, outdoor garden spaces were valued for helping to relieve stress and enabling gardeners to connect to nature and other community members safely.
- The biggest changes in the garden were that gardeners had more time to spend gardening and many were planting more than in previous years. With more time, gardeners reported being able to take better care of their gardens and experimenting with new techniques and plants.
- About half of respondents reported experiencing no barriers to gardening during the pandemic. For the other half, obtaining supplies, such as seeds, was the most significant gardening challenge during the pandemic.



Many respondents reported gardening at home, in their yard (82%) and/or on a balcony (17%). Fourteen percent gardened at a community garden. Their gardens varied in size, but tended to be large plots of land (74%). Growing vegetables (65%), herbs (85%), fruits (65%), and ornamentals (70%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, many (65%) answered less than 10%. One-quarter answered 25%.

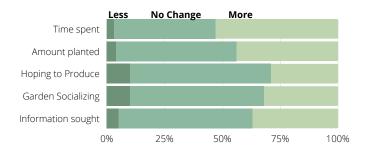
## The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Western Germany, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) outdoor learning/educating.



## **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. About half of gardeners were also planting more in 2020. However, the majority of gardeners expressed no change in the quantity of produce they were hoping to harvest, the amount of garden socializing they did, and the amount of information about gardening that they sought.



"I have become more aware of the value of having my own garden and being selfsufficient."

SCHOOL GARDENER, FEMALE, AGE 45, BONN, NW

"I appreciate the garden even more now. Freedom from stress. Peace. Distraction."

HOME GARDENER, FEMALE, AGE 55, BIELEFELD, NW

"I learned to appreciate the value of having my own garden anew. Of course, we were able to move around outdoors even during the contact restrictions, but in my own garden it was more carefree because I didn't always have to pay attention to whether passersby were keeping their distance."

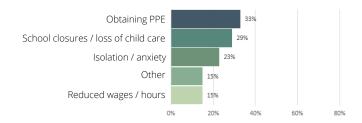
HOME GARDENER, FEMALE, AGE 34, MAINZ, RP

WEST GERMANY PAGE 32

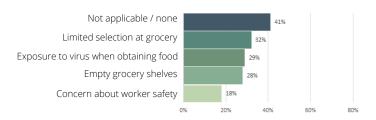
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were getting protective gear (33%) and dealing with school closures and the loss of child care (29%). Generally, gardeners in the study were not experiencing food insecurity: 1% reported not having enough food at home or an inability to pay for food. 13% reported having less fresh food at home since the start of the pandemic.

## Most frequently cited personal difficulties faced during Covid-19



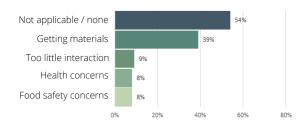
### Most frequently cited barriers to food access during COVID-19



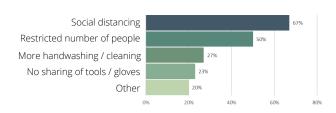
### Garden challenges

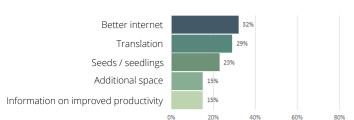
Over half of respondents were not experiencing any challenges in gardening because of the pandemic. For others, the biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Improved internet connection and the availability of translation services were the most requested forms of support aside from supplies.

### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules





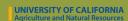


















## GARDENING DURING COVID-19:

## California, United States

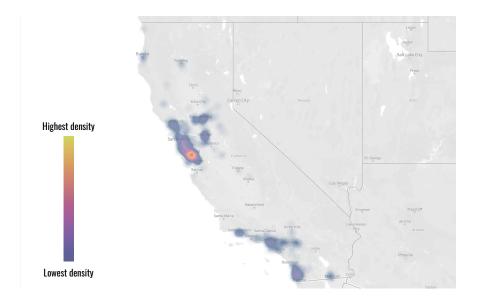


### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 603 survey responses received from gardeners in California in summer 2020.

## Who are the gardeners?

603 gardeners from across California responded to this survey. Responses were largely clustered in metropolitan regions, such as the Bay Area and San Diego, as shown in the map below. Most respondents were experienced gardeners; 60% had gardened for more than 10 years, while just 7% were gardening for the first time. In general, gardeners were female (82%) and highly educated: 83% had a bachelor's degree or higher. Gardeners ranged in age from 23 to 87, with an average age of 57.



## U.S. highlights

- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

Most respondents reported gardening at home, in their yard (85%) and/or on a balcony (8%). Twenty-three percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (32%) or took up a large section of their yard (56%). Growing vegetables (94%), herbs (84%), fruits (71%), and ornamentals (69%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, one-third answered less than 10%, one-third answered 25%, and one-fifth answered 50%.

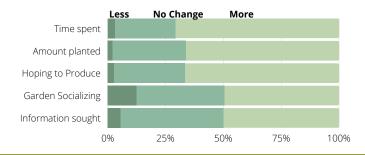
### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In California, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 35% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were also planting more in 2020, hoping to harvest more, and seeking more information about gardening.



"COVID-19 has increased the value of a garden as a place to destress and to connect to nature."

HOME GARDENER, FEMALE, AGE 67, OCCIDENTAL, CA

"Since I have 5 acres, I realized that I could help supply some food needs for my community, if there was a great need for it. I had never really thought about doing that before."

HOME GARDENER, FEMALE, AGE 52, STOCKTON, CA

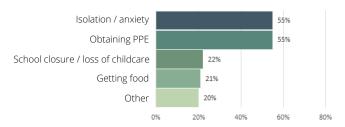
"I am increasingly grateful for having space in a community garden that I can walk to from home. In addition to gardening for myself, the opportunity to share work, learning and produce with others during a time of relative isolation has been very important to me."

COMMUNITY AND HOME GARDENER, FEMALE, AGE 76, SAN RAFAEL, CA

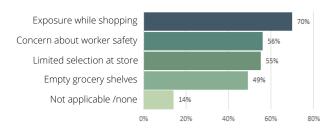
### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (55%) and getting protective gear (55%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or an inability to pay for food. This is not representative of California as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

### Most frequently cited personal difficulties faced during Covid-19



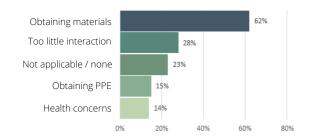
## Most frequently cited barriers to food access during COVID-19



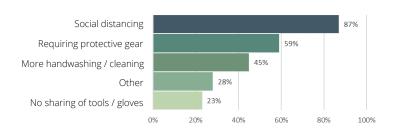
### Garden challenges

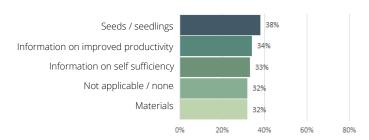
The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. About a quarter of respondents were not experiencing any challenges gardening because of the pandemic.

### Most frequently cited barriers to gardening during COVID-19



### Most common new community garden rules























# GARDENING DURING COVID-19: Illinois, United States

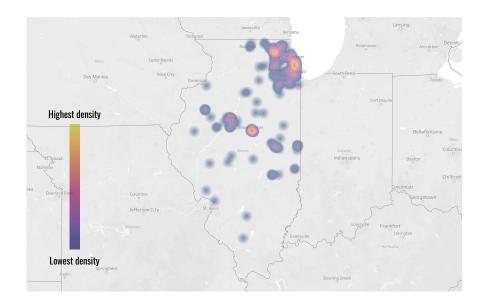


#### **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 231 survey responses received from gardeners in Illinois in summer 2020.

#### Who are the gardeners?

231 gardeners from across Illinois responded to this survey. Responses were largely clustered in Chicago, Elgin, and Bloomington, as shown in the map below. Most respondents were experienced gardeners; 88% had gardened for more than 10 years, while just 4% had been gardening for fewer than 5 years. In general, gardeners were female (87%) and highly educated: 83% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 85, with an average age of 65.



#### U.S. highlights

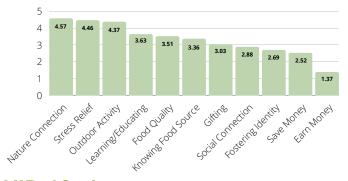
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### **Garden characteristics**

Most respondents reported gardening at home, in their yard (93%) and/or on a balcony (4%). Twenty-seven percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (19%) or took up a large section of their yard (66%). Growing vegetables (82%), herbs (77%), fruits (36%), and ornamentals (77%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-third answered 25%, and one-tenth answered 50%.

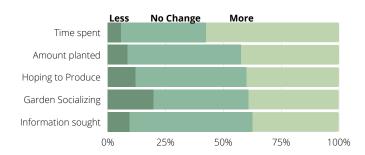
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Illinois, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) gardening for the sake of learning or educating. About 45% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. Just under half of gardeners (43%) were also planting more in 2020.



"COVID has highlighted for me the importance of my garden's role in mental health and self-care."

HOME GARDENER, FEMALE, AGE 68, CARY, IL

"We give extra produce to our community food pantry, a vital service now more than ever. My garden is also my absolute 'happy place' now more than ever."

HOME GARDENER, FEMALE, AGE 67, CRYSTAL LAKE, IL

"We grew a lot more in our garden this year and it has given my family so much joy. Usually I do all the tending but my children have helped so much. They run to the plants every morning to check on them and help."

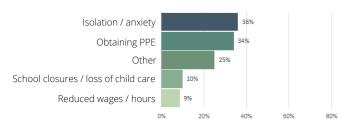
HOME GARDENER, FEMALE, AGE 36, ALGONQUIN, IL

#### **COVID-19 CHALLENGES**

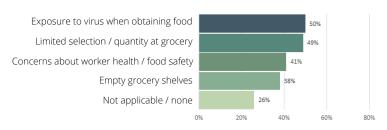
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (36%) and getting protective gear (34%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or an inability to pay for food. This is not representative of Illinois as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



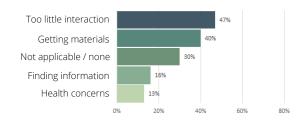
#### Most frequently cited barriers to food access during COVID-19



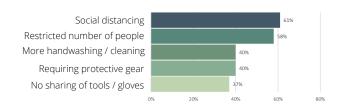
#### Garden challenges

The biggest challenge to gardening in the pandemic was limited social interaction with others. Gardeners also reported difficulty getting supplies (like seeds and plants). About a third of respondents were not experiencing any challenges gardening because of the pandemic.

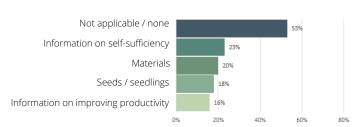
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















# GARDENING DURING COVID-19: Michigan, United States

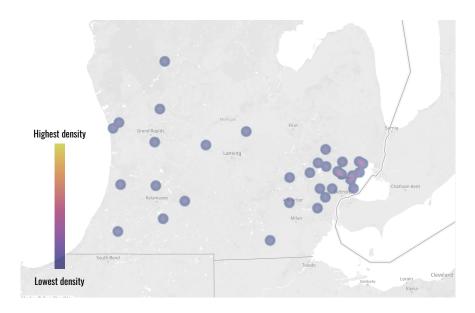


#### **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 33 survey responses received from gardeners in Michigan in summer 2020.

#### Who are the gardeners?

33 gardeners from across Michigan responded to this survey. Responses were scattered across the state, with a higher density of clustering in the greater Detroit metropolitan area, as shown in the map below. Most respondents were experienced gardeners; 79% had gardened for more than 10 years, while just 3% had been gardening for fewer than five years. In general, gardeners were female (88%) and highly educated: 67% had a bachelor's degree or higher. Gardeners ranged in age from 29 to 83, with an average age of 60.



#### U.S. highlights

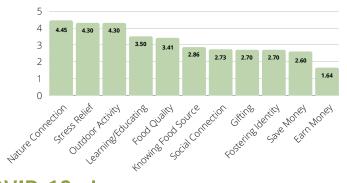
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### **Garden characteristics**

Most respondents reported gardening at home, in their yard (91%) and/or a friend's yard (15%). Twenty-one percent gardened at a community garden. Their gardens frequently took up a large section of their yard (58%) or a space exceeding the size of a typical residential plot (24%). Growing vegetables (70%), herbs (73%), fruits (48%), and ornamentals (85%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-quarter answered 25%, and one-tenth answered 50%.

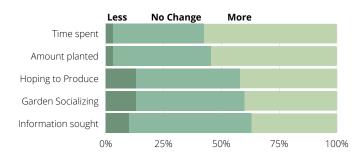
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Michigan, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) gardening for the sake of learning/educating. About 44% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. About half of gardeners were also planting more in 2020, hoping to harvest more, and seeking more garden socializing.



"We are retired and we were going to make our garden smaller, but when COVID hit we doubled it instead! Love to store what we need and share the rest."

HOME GARDENER, FEMALE, AGE 69, BIG RAPIDS, MI

"Lately I have had the time to work on my garden and enjoy the serenity it gives me."

HOME GARDENER, FEMALE, AGE 72, STERLING HEIGHTS, MI

"I hope that gardening can help with diet quality during this time of economic hardship, encourage people to eat fresh vegetables when they are going to the store less, and keep people eating vegetables when they may be concerned about getting coronavirus from fresh produce."

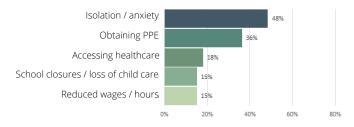
HOME GARDENER, FEMALE, AGE 34, TROY, MI

#### **COVID-19 CHALLENGES**

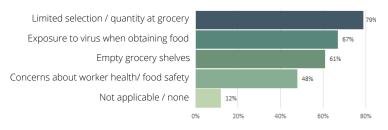
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (48%) and getting protective gear (36%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity; 0% of respondents reported not having enough food at home or an inability to pay for food. This is not representative of Michigan as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



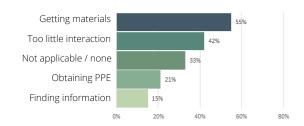
#### Most frequently cited barriers to food access during COVID-19



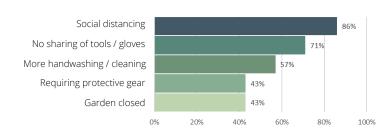
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. About a third of respondents were not experiencing any challenges gardening because of the pandemic.

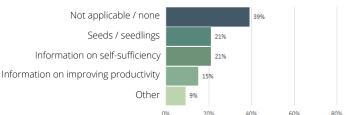
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















## GARDENING DURING COVID-19: Minnesota, United States

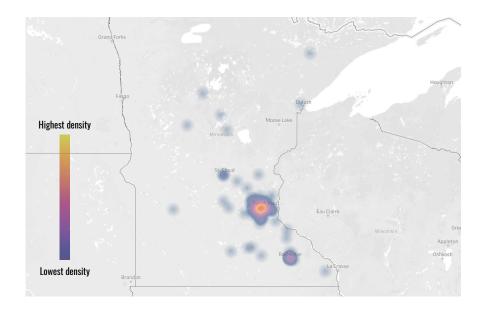


## **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 131 survey responses received from gardeners in Minnesota in summer 2020.

#### Who are the gardeners?

131 gardeners from across Minnesota responded to this survey. Responses were largely clustered in and around St. Paul, as shown in the map below. Most respondents were experienced gardeners; 79% had gardened for more than 10 years, while just 2% were gardening for the first time. In general, gardeners were female (92%) and highly educated: 91% had a bachelor's degree or higher. Gardeners ranged in age from 27 to 82, with an average age of 58.



#### U.S. highlights

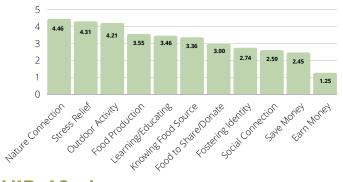
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### **Garden characteristics**

Most respondents reported gardening at home, in their yard (92%) and/or on a balcony (6%). Twenty percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (19%) or took up a large section of their yard (68%). Growing vegetables (87%), herbs (84%), fruits (57%), and ornamentals (78%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, half answered less than 10%, one-fifth answered 25%, and one-tenth answered 50%.

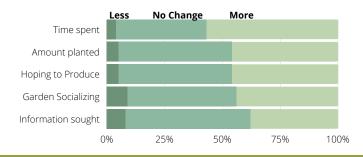
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Minnesota, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 35% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. Half of gardeners report no change in the amount they were planting in 2020, how much they were hoping to harvest, or how much gardening information they sought.



"I've always appreciated my gardens, but now they are a stable and unchanged good thing through COVID. Also glad I don't have to go to store for produce."

HOME GARDENER, FEMALE, AGE 66, APPLE VALLEY, MN

"Gardening has long been a central tenet of my life.
COVID-19 has provided me with additional time to spend in my gardens due to reduction in external activities that would normally take me away from home."

HOME GARDENER, FEMALE, AGE 57, EAGAN, MN

"I find myself hoping to harvest more to give to neighbors. I will likely give away rather than freeze this year due to COVID impacts on my neighbors. I also think now is the perfect time to focus on healthy diet as it cannot hurt to boost your immune system."

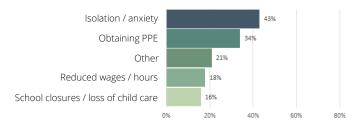
HOME GARDENER, FEMALE, AGE 37, HASTINGS, MN

#### **COVID-19 CHALLENGES**

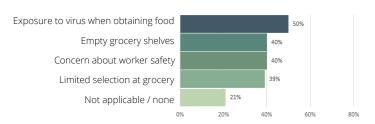
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (43%) and getting protective gear (34%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 0% of respondents reported not having enough food at home or an inability to pay for food. This is not representative of Minnesota as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



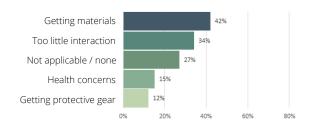
#### Most frequently cited barriers to food access during COVID-19



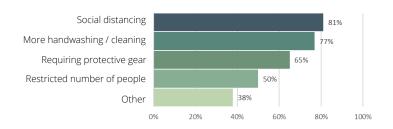
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. About a quarter of respondents were not experiencing any challenges gardening because of the pandemic.

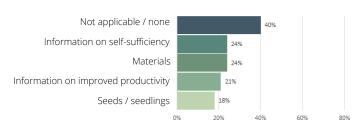
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















#### **GARDENING DURING COVID-19:**

#### New York, United States

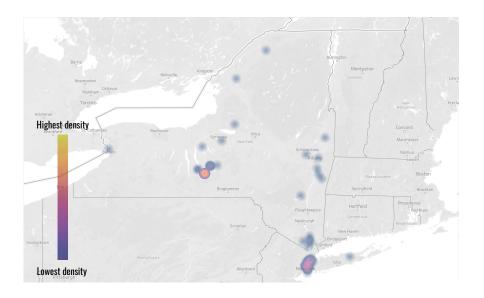


## **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 78 survey responses received from gardeners in New York in summer 2020.

#### Who are the gardeners?

78 gardeners from across New York responded to this survey. Responses were largely clustered in New York City and Ithaca, as shown in the map below. Most respondents were experienced gardeners; 58% had gardened for more than 10 years, while just 4% were gardening for the first time. In general, gardeners were female (86%) and highly educated: 85% had a bachelor's degree or higher. Gardeners ranged in age from 24 to 77, with an average age of 53.



#### U.S. highlights

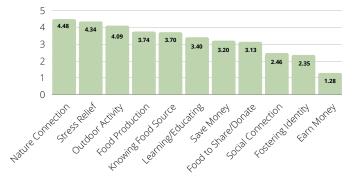
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### Garden characteristics

Most respondents reported gardening at home, in their yard (76%) and/or on a balcony (10%). Twenty-seven percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (27%) or took up a large section of their yard (44%). Growing vegetables (98%), herbs (94%), fruits (60%), and ornamentals (67%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, one-third answered less than 10% and one-third answered 25%.

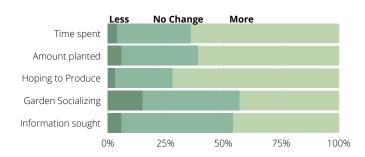
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In New York, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 34% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for New York gardeners in 2020 was their desire to produce more from their gardens; they were also planting more. More than half of gardeners were also spending more time gardening due to lockdown restrictions.



"With other activities outside the home curtailed, it's made me focus on the garden and rekindled and interest and enthusiasm for gardening that I'd lost due to the distractions of the outside world."

COMMUNITY GARDENER, MALE, AGE 64, ITHACA, NY

"Growing food at home means less reliance on the fossil fuel industry to transport produce across the nation, and less risk of infection from multiple handler's of food."

HOME GARDENER, FEMALE, AGE 67, ULYSSES, NY

"Community gardens, even windowsill gardens, can help people get fresh food, and also provide mental stress relief. It's very therapeutic."

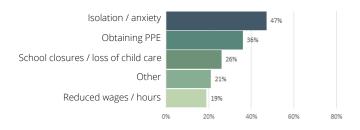
HOME GARDENER, GENDER DIVERSE, AGE 31, NEW YORK, NY

#### **COVID-19 CHALLENGES**

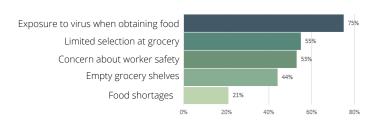
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (47%) and getting protective gear (36%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 3% reported not having enough food at home or an inability to pay for food. This is not representative of New York as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



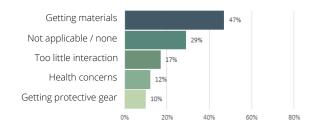
#### Most frequently cited barriers to food access during COVID-19



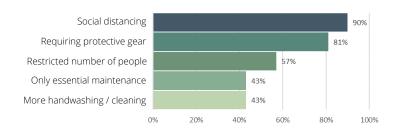
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a third of respondents were not experiencing any challenges gardening because of the pandemic.

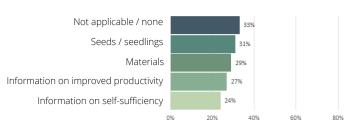
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















#### **GARDENING DURING COVID-19:**

## Ohio, United States

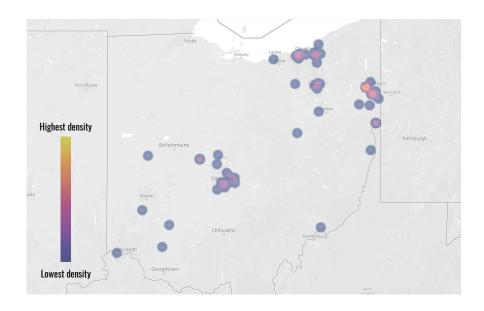


## **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 56 survey responses received from gardeners in Ohio in summer 2020.

#### Who are the gardeners?

56 gardeners from across Ohio responded to this survey. Responses were largely clustered in major cities like Columbus, Cleveland and Youngstown, as shown in the map below. Most respondents were experienced gardeners; 77% had gardened for more than 10 years, while just 7% were gardening for the first time. In general, gardeners were female (84%) and highly educated: 71% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 78, with an average age of 60.



#### U.S. highlights

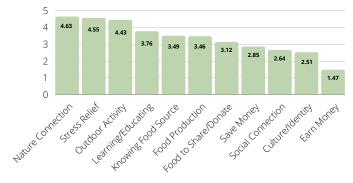
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### **Garden characteristics**

Most respondents reported gardening at home, in their yard (93%) and/or on a balcony (5%). Twenty-five percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (23%) or took up a large section of their yard (70%). Growing vegetables (91%), herbs (79%), fruits (37%), and ornamentals (75%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, forty-one percent answered less than 10% and forty-three percent answered 25%.

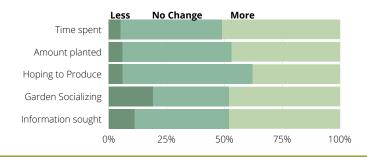
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Ohio, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) learning/educating. About 58% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. Nearly half of respondents also reported planting more, socializing in the garden more, and seeking more information about gardening in 2020.



"The reduction of typical social networking has increased the drive for members to participate in activities at the gardens. Interacting in the outdoors makes protected socialization possible."

HOME GARDENER, FEMALE, AGE 71, NEW MIDDLETOWN, OH

"The down time and being forced to stay home has very much shifted my concerns about self-sustainability and my connection with mother nature."

HOME GARDENER, FEMALE, AGE 45, COLUMBUS, OH

"Gardening is an important way to make sure there is safe/healthy food on hand, especially during shortages or when fresh food is in short supply or grocery stores are limited."

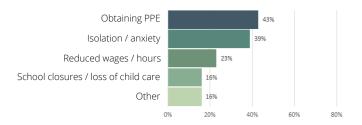
COMMUNITY GARDENER, FEMALE, AGE 51, LAKEWOOD, OH

#### **COVID-19 CHALLENGES**

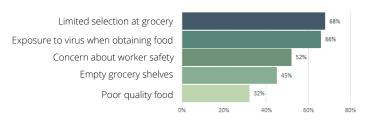
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were getting protective gear (43%) and feeling isolated, anxious, or depressed (39%). Many gardeners also had concerns about the quality and quantity of food available at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 8% reported not having enough food at home or an inability to pay for food. This is not representative of Ohio as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



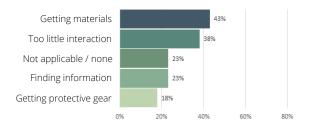
#### Most frequently cited barriers to food access during COVID-19



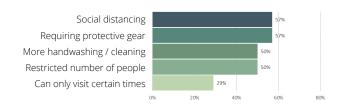
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. Information about production and self-sufficiency were the most requested forms of support aside from supplies. About a quarter of respondents were not experiencing any challenges gardening because of the pandemic.

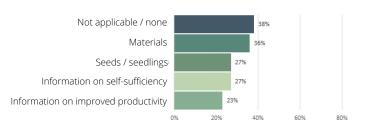
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















## GARDENING DURING COVID-19: Washington, United States

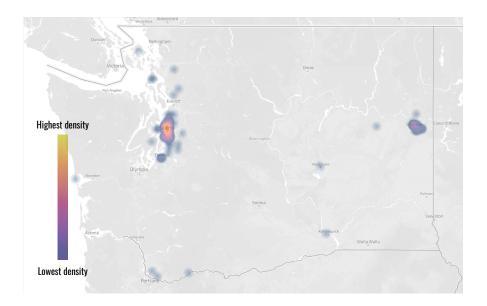


#### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 141 survey responses received from gardeners in Washington in summer 2020.

#### Who are the gardeners?

141 gardeners from across Washington responded to this survey. Responses were largely clustered in in the greater Seattle area, as shown in the map below. Most respondents were experienced gardeners; 65% had gardened for more than 10 years, while just 2% were gardening for the first time. In general, gardeners were female (85%) and highly educated: 89% had a bachelor's degree or higher. Gardeners ranged in age from 28 to 88, with an average age of 57.



#### U.S. highlights

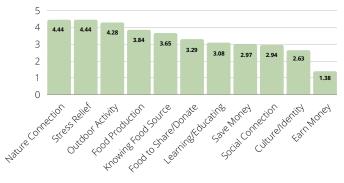
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### Garden characteristics

Most respondents reported gardening at home, in their yard (71%) and/or on a balcony (12%). Fifty-two percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (43%) or took up a large section of their yard (51%). Growing vegetables (96%), herbs (82%), fruits (60%), and ornamentals (74%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, thirty percent answered less than 10% and forty percent answered 25%.

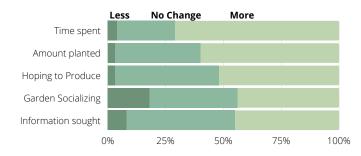
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Washington, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) food production and food quality. About 25% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were planting more in 2020 and also hoping to harvest more.



"When I began gardening in a community garden my primary focus was just growing vegetables and I was pleasantly surprised by how much I enjoyed the community aspect of it. This year during COVID it has been one of the main activities contributing to my mental health."

COMMUNITY GARDENER, FEMALE, AGE 47, SEATTLE, WA

"I help manage a community garden. Many more people have requested plots during COVID-19 than in the before times."

COMMUNITY GARDENER, FEMALE, AGE 75, SEATTLE, WA

"I live in central urban Seattle, WA. The pandemic highlights how extremely limited the community gardening spaces are for those that want to garden for necessity or pleasure, or have a place to garden or enjoy the benefits of a garden within walking distance of their home."

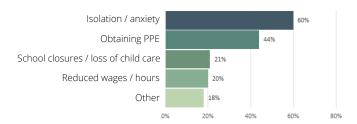
COMMUNITY GARDENER, FEMALE, AGE 40, SEATTLE, WA

#### **COVID-19 CHALLENGES**

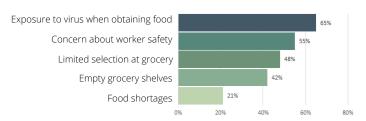
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (60%) and getting protective gear (44%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 4% reported not having enough food at home or an inability to pay for food. This is not representative of Washington as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



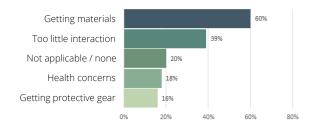
#### Most frequently cited barriers to food access during COVID-19



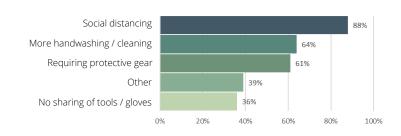
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. Information about production and self-sufficiency were the most requested forms of support aside from supplies. About one-fifth of respondents were not experiencing any challenges gardening because of the pandemic.

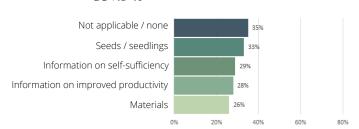
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















## GARDENING DURING COVID-19: Wisconsin, United States

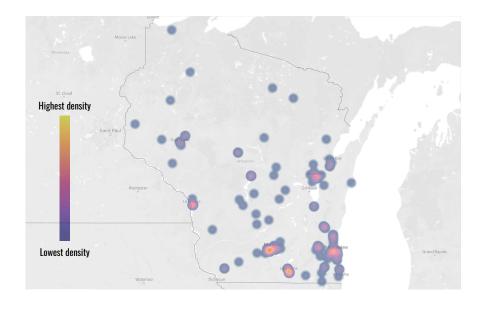


## **Study description**

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 132 survey responses received from gardeners in Wisconsin in summer 2020.

#### Who are the gardeners?

132 gardeners from across Wisconsin responded to this survey. Responses were scattered widely across the state, but tended to be concentrated in major cities like Milwaukee, as shown in the map below. Most respondents were experienced gardeners; 80% had gardened for more than 10 years, while <1% were gardening for the first time. In general, gardeners were female (90%) and highly educated: 75% had a bachelor's degree or higher. Gardeners ranged in age from 25 to 84, with an average age of 62.



#### U.S. highlights

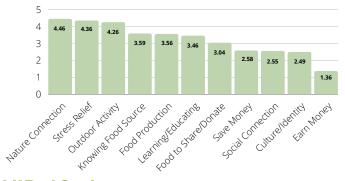
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### Garden characteristics

Most respondents reported gardening at home, in their yard (93%) and/or on a balcony (6%). Twenty-six percent gardened at a community garden. Their gardens were frequently the size of one or two raised beds (21%) or took up a large section of their yard (62%). Growing vegetables (90%), herbs (80%), fruits (43%), and ornamentals (80%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, one-third answered less than 10%, one-quarter answered 25%, and one-fifth answered 50%.

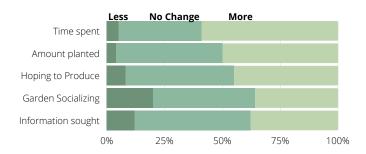
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In Wisconsin, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) outdoor physical activity, and 4) knowing the source of their food. About 43% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were also planting more in 2020.



"The degree of food insecurity has increased tremendously since the shutdown. Anything we can do to provide organic nutritious food to our fellow citizens is a privilege."

HOME GARDENER, FEMALE, AGE 66, DELAFIELD, WI

"I feel gardening has become more important as viable way to provide activity and selfsustenance."

HOME GARDENER, FEMALE, AGE 66, LA CROSSE, WI

"It is a way of connecting and sharing during a time when we can't connect and share close together. It gives my friend group something new and exciting to talk about (several friends are gardening too). We encourage each other and celebrate our gardens together! It also has underscored the ridiculousness (in my opinion) of the cultural norm here in the US of a "manicured lawn".

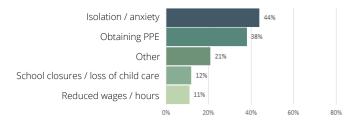
HOME GARDENER, FEMALE, AGE 49, JANESVILLE, WI

#### **COVID-19 CHALLENGES**

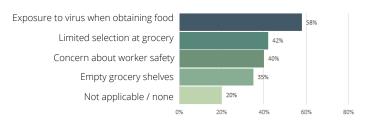
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were feeling isolated, anxious, or depressed (44%) and getting protective gear (38%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic. Generally, gardeners in the study were not experiencing food insecurity: 5% reported not having enough food at home or an inability to pay for food. This is not representative of Wisconsin as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



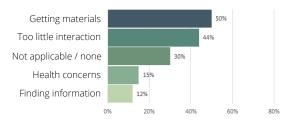
#### Most frequently cited barriers to food access during COVID-19



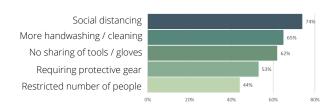
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. About one-third of respondents were not experiencing any challenges gardening because of the pandemic, and half reported not needing support in their gardening. For others, information on production and self-sufficiency were the most requested support other than materials.

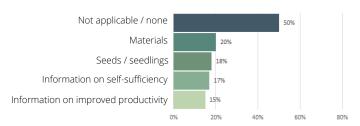
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















#### **GARDENING DURING COVID-19:**

## West Virginia, United States

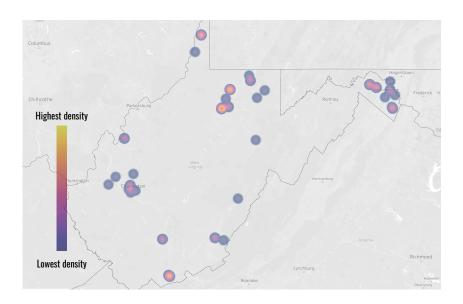


#### Study description

To learn how gardeners have been impacted by and responded to the Covid-19 pandemic, we surveyed 3,743 gardeners in multiple countries between June and August 2020, during the pandemic's first wave. The survey was distributed through garden newsletters, social media, and targeted emails to gardener groups in researchers' home countries. In the United States, many respondents were recruited through the Master Gardener Program. The information summarized here reflects the 60 survey responses received from gardeners in West Virginia in summer 2020.

#### Who are the gardeners?

60 gardeners from across West Virginia responded to this survey. Responses were largely clustered in Clarksburg, Charleston and Martinsburg, as shown in the map below. Most respondents were experienced gardeners; 75% had gardened for more than 10 years, while just 2% were gardening for the first time. In general, gardeners were female (83%) and highly educated: 85% had a bachelor's degree or higher. Gardeners ranged in age from 30 to 85, with an average age of 65.



#### U.S. highlights

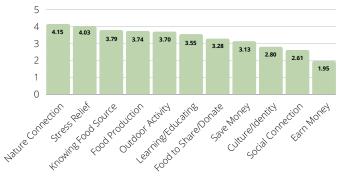
- One of the biggest changes for gardeners early in the pandemic was having more time to spend in the garden.
- More than half of gardeners reported feeling isolated, anxious, or depressed as a result of the pandemic. One of the biggest impacts people associated with gardening was improving mental well-being, particularly through relaxation and stress reduction.
- With many concerns about the safety of regular activities, gardeners found their gardens to be a refuge, where they could escape from the stress of the pandemic and connect with nature.
- Food production took on a greater significance for some in light of food supply disruption and rising food insecurity.
   Gardeners hoped to increase their own self-sufficiency and/or grow food for others in their communities.

#### **Garden characteristics**

Most respondents reported gardening at home, in their yard (92%) and/or at a community garden (8%). Their gardens were frequently the size of one or two raised beds (27%) or took up a large section of their yard (52%). Growing vegetables (94%), herbs (84%), fruits (71%), and ornamentals (69%) were all common. When asked how much of their fresh produce needs they thought they could meet from their garden, a quarter answered less than 10% and one-third answered 25%.

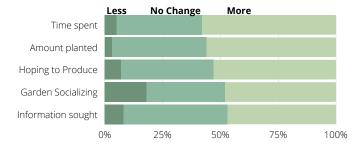
#### The value of pandemic gardens

Gardeners were asked to rate the importance of various reasons for having a garden during Covid-19, using a scale of 1 (not important) to 5 (very important). The chart below shows average scores. The higher the score, the more importance gardeners placed on it. In West Virginia, gardeners most valued 1) connecting to nature, 2) relaxing and relieving stress, 3) knowing their food's source, and 4) food production and food quality. About 38% of gardeners said there had been no change in how they perceived gardening during the pandemic because they had always valued it.



#### **COVID-19 changes**

The biggest change for most gardeners was having more time to garden as a result of lockdown restrictions. More than half of gardeners were also planting more and hoping to harvest more in 2020.



"The food I can grow is food I can trust to be free of any outside contamination. I can raise organically."

HOME GARDENER, FEMALE, AGE 71, PRINCETON, WV

"Interruption of supply chains indicates the need for decentralizing food production; home and community gardens are a necessary element of this decentralization."

HOME GARDENER, FEMALE, AGE 66, BROOKHAVEN, WV

"I have gardened all my adult life.
I am glad to see increased
interest in this important activity.
The health benefits (mental and
physical) are perhaps more
important even than the food
value. I hope many individuals
will continue to garden after the
pandemic is over."

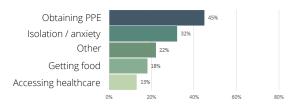
HOME GARDENER, FEMALE, AGE 69, MARLINTON, WV

#### **COVID-19 CHALLENGES**

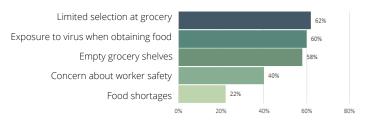
#### Personal challenges

For those who were experiencing difficulties because of the pandemic, the most common challenges were getting protective gear (45%) and feeling isolated, anxious, or depressed (32%). Many gardeners also had concerns about the safety of obtaining food at the store during the first wave of the pandemic, as well as the quality and quantity of food available. Generally, gardeners in the study were not experiencing food insecurity: 2% reported not having enough food at home or an inability to pay for food. This is not representative of West Virginia as a whole, where food insecurity rates jumped significantly during the early months of the pandemic.

#### Most frequently cited personal difficulties faced during Covid-19



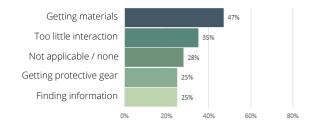
#### Most frequently cited barriers to food access during COVID-19



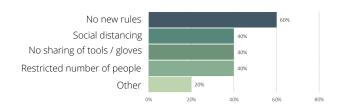
#### Garden challenges

The biggest challenge to gardening in the pandemic was getting supplies (like seeds and plants). Gardeners also reported missing social interactions while gardening. Information on production and self-sufficiency were the most requested support other than materials. About a quarter of respondents were not experiencing any challenges gardening because of the pandemic.

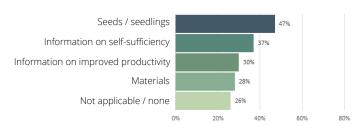
#### Most frequently cited barriers to gardening during COVID-19



#### Most common new community garden rules



#### Most requested support for gardening during COVID-19





















## **Appendix**

Translations of German Infosheets (Übersetzungen von Deutschland Infosheets)

## **Einleitung**

#### Über diese Arbeit

Anfang der 2020er Jahre, als die erste COVID-19-Welle über die Welt schwappte, schien auch das Interesse an der Gartenarbeit zuzunehmen. Die Online-Suche nach Informationen über Gartenarbeit nahm parallel zu den steigenden Fallzahlen zu (Lin et al. 2021). Auch die Medien zeigten mehr Interesse an der Gartenarbeit. In den aktuellen Nachrichten wurde über Erstgärtner und über den Mangel an Pflanzen und Saatgut in Gärtnereien und Online-Shops berichtet.

Unser Team von Forscher:innen aus Australien, Deutschland und den USA hat sich zusammengefunden, um besser zu verstehen, warum und wie die Menschen während der COVID-19-Pandemie gärtnerisch tätig waren. Unsere früheren Forschungsarbeiten hatten uns bereits gezeigt, wie vorteilhaft die Gartenarbeit für verschiedene Gemeinschaften sein kann - für die körperliche und geistige Gesundheit, die Nahrungsmittelproduktion, die sozialen Beziehungen und vieles mehr. Wir wollten jedoch wissen, ob und wie Gärten in der Lage waren, diese Vorteile in einer besonders stressigen Zeit, während der weltweiten COVID-19-Pandemie, zu nutzen.

Wir betrachten Gärten als eine Reihe von Orten, an denen Menschen eine Vielzahl von Pflanzen, Blumen, Obst oder Gemüse anbauen und pflegen. Gärten sind sehr unterschiedlich groß (von einzelnen Container bis zu ganzen Garten oder mehr), können auf öffentlichem oder privatem Grund liegen und individuell oder kollektiv bewirtschaftet werden.

#### Konkret wollten wir wissen:

- Welche Bedeutung hat die Gartenarbeit im Leben der Gärtner, wenn sie mit den Risiken und Herausforderungen der Pandemie fertig werden müssen?
- Wie verändern die Gärtner die Nutzung und Bewirtschaftung ihrer Gärten aufgrund der Pandemie?
- Welche Hindernisse, Bedürfnisse und Unterstützungsquellen stellen die Gärtner während der Pandemie fest?

Zur Beantwortung dieser Fragen verteilten wir eine Online-Umfrage an Gärtner über soziale Medien, Newsletter und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher. Die Antworten wurden zwischen Juni und August 2020 gesammelt. Wir erhielten 3.743 Antworten, hauptsächlich aus Australien, Deutschland und den USA. Aufgrund unserer Verteilungsstrategie sind unsere Ergebnisse eher repräsentativ für bestimmte Gartennetzwerke als für alle Gärtner in diesen drei Ländern. Ebenso bedeutet die Entscheidung für eine Online-Umfrage, dass unsere Befragten tendenziell zu Bevölkerungsgruppen gehören, die über einen zuverlässigen Internetzugang verfügen, sich mit Online-Umfragen wohlfühlen und Englisch oder Deutsch beherrschen.

#### Was wir gefunden haben

- Bei den Teilnehmern handelte es sich in der Regel um Frauen in den Mittfünfzigern mit Hochschulbildung.
- Während COVID-19 gab es fünf wesentliche Veränderungen bei der Gartenarbeit:
  - Die Menschen hatten mehr Zeit, sich mit der Gartenarbeit zu beschäftigen;
  - Gärten wurden zu einem "sicheren Ort", um Zeit im Freien zu verbringen, ein Zufluchtsort, an dem man seine eigenen Lebensmittel anbauen und sich mit der Natur verbinden kann;
  - Viele Menschen schätzten den Garten als sozialen Raum, in dem sie die Beziehungen zu Familie und Freunden stärken und Kontakte zu anderen Gärtnern und Nachbarn knüpfen konnten;

- Einige Menschen wurden in ihrem Bemühen, ihre Gemeinschaft und ihren Planeten positiv zu beeinflussen, innovativer in ihren gärtnerischen Ansätzen;
- Für viele jedoch hinderte der fehlende Zugang zu Saatgut, Platz und anderen Ressourcen sie daran, in dem gewünschten Umfang zu gärtnern.
- Mehr als die Hälfte aller Teilnehmer fühlte sich in der Anfangsphase der Pandemie isoliert, ängstlich und/oder deprimiert. Darüber hinaus machten sich 81 % der Teilnehmer Sorgen über den Zugang zu Lebensmitteln, insbesondere über die Ansteckung mit dem Virus bei der Beschaffung von Lebensmitteln sowie über die Auswahl und die Menge der Lebensmittel in den Geschäften.
- Einer der wichtigsten Vorteile der Gartenarbeit in den ersten Monaten der COVID-19-Pandemie war die Art und Weise, wie die Gärten als therapeutische Räume fungierten. Die Gärtnerinnen und Gärtner beschrieben nicht nur ein Gefühl der Kontrolle und der Sicherheit, das sich aus der Lebensmittelproduktion ergab, sondern sie äußerten auch vermehrte Erfahrungen von Freude, Schönheit und Freiheit im Garten. In dieser Zeit fühlten sich die Menschen stärker mit der Natur verbunden und fühlten sich mit ihr verbunden (Marsh et al., 2021).

#### Wie geht es weiter?

Auf der Grundlage dieser Ergebnisse kamen wir zu dem Schluss, dass die Gärten in dieser Zeit plötzlicher und extremer Veränderungen des Lebensstils eine positive Rolle für die geistige und körperliche Gesundheit der Gärtner spielten. Die Gärten kamen auch einer größeren Gemeinschaft zugute, da die Menschen ihr Wissen, ihr Saatgut, ihre Pflanzen und Lebensmittel sowie ihre Zeit und Arbeit im Garten miteinander teilten. Wie wir aus den Erzählungen der Gärtnerinnen und Gärtner, die an dieser Umfrage teilgenommen haben, erfahren haben, sahen einige ihre Gärten auch als Teil einer breiteren Palette von Strategien zur Schaffung widerstandsfähigerer regionaler Lebensmittelsysteme, zur Anpassung an den Klimawandel und zum Schutz der Artenvielfalt.

Unsere Ergebnisse zeigen, dass Regierungen, Nichtregierungsorganisationen, Gemeinschaftsgruppen und Unternehmen die Möglichkeit haben, die Gesundheit und das Wohlbefinden der Gemeinschaft zu verbessern, indem sie Grünflächen zur Verfügung stellen und den Zugang zu Gärten und Gartenarbeit erleichtern. Regierungen auf allen Ebenen können politische Maßnahmen entwickeln, die es Gemeinschaften erleichtern, zu gärtnern, indem sie Platz, Ressourcen und Unterstützung bereitstellen, wobei der Schwerpunkt auf der Beseitigung von Ungleichheiten beim Zugang zu Grünflächen und gesunden Lebensmitteln liegt. Gärten können auch als Resilienzstrategie gefördert werden, um Menschen bei der Bewältigung von und der Erholung nach einer Vielzahl von sozialen und natürlichen Katastrophen zu unterstützen. Damit Gärten jedoch erfolgreich als Orte der Resilienz fungieren können, müssen Investitionen in ihre soziale und physische Infrastruktur getätigt werden, bevor es zu einer Katastrophe kommt.

#### **Regionale Kurzberichte**

Auf den folgenden Seiten werden die Ergebnisse für bestimmte Staaten und Regionen in Australien, Deutschland und den USA dargestellt. Trotz erheblicher geografischer und klimatischer Unterschiede sowie unterschiedlicher nationaler Reaktionen auf die Pandemie waren die Beschreibungen der Gärtner aus dieser Zeit bemerkenswert ähnlich. Während des persönlichen, sozialen und wirtschaftlichen Umbruchs, den COVID-19 verursachte, fanden die Gärtner Trost in ihren Gärten, wo sie dem Stress der Pandemie entfliehen, sich mit der natürlichen Welt verbinden und oft Wege finden konnten, sicher mit anderen zu interagieren. Wichtig ist, dass die Gärten nicht nur ein Ort der Erholung waren. Die Gärtnerinnen und Gärtner beschrieben auch, dass die Gartenarbeit für sie eine Möglichkeit war, sich selbst und anderen angesichts von Umständen zu helfen, die sich ansonsten weitgehend ihrer Kontrolle entzogen.

Wir wünschen Ihnen viel Interesse bei der Lesen der folgenden Zusammenfassungen.

#### **Danksagung**

Wir danken allen Gärtnerinnen und Gärtnern, die sich weltweit an unseren Umfragen beteiligt haben, für die Weitergabe ihrer Erfahrungen und ihres Fachwissens. Darüber hinaus möchten wir uns bei den zahlreichen Gartenorganisationen und -gruppen bedanken, die uns bei der Verteilung der Online-Umfrage unterstützt und uns geholfen haben, eine so breite Resonanz zu erhalten. Zu diesen Gruppen gehören:

University of California Master Gardener Program

The Royal Horticulture Society of UK

The Public Health Association Australia Western

Australian Branch ACSDistanceEducation

Geographies of Health & Wellbeing Research Group

Royal Botanic Gardens Sydney

Kevin Heinz Grow The Garden Clinic

ABC Gardening Australia Magazine Sophie Thomson (ABC presenter)

Gardening Australia

Community Greening NSW

Cooperative Gardens Commission Therapeutic Horticulture Australia

Therapeutic landscape collective Tasmania

Transitions Town Marobyrnong

'Reverge' - Community Verge Gardens

Australian Garden Council Vic Park Urban Foresters SABGR Lower Eyre Peninsula Namatjira Dreaming Community

The Forge Garden
La Mesa Verde

Wingham Nursery and Florest Enviro & Sustainable News (WA)

Cornell Cooperative Extension Tompkins County Turf Growers Association Western Australia

The Community Plate

Australian Institute of Horticulture Inc.

Rotary Community Garden and Food Forest of Carol

Springs

Community gardens in California

P-Patch Community Gardening Program

Crops Swap - Boronia, The Basin, Ferntree Gully and

surrounds

South Florida Edible Gardening and Sustainable Living

Northeast Permaculture Network

German Ecological Society

Deutsche Gesellschaft für Gartenkunst und

Landschaftskultur DGGL e. V.

#### Ausführlichere Studienergebnisse finden Sie in diesen Dokumenten:

- Marsh, P., Diekmann, L. O., Egerer, M., Lin, B., Ossola, A., & Kingsley, J. (2021). Where birds felt louder: The garden as a refuge during COVID-19. Wellbeing, Space and Society, 2, 100055.
- Lin, B. B., Egerer, M. H., Kingsley, J., Marsh, P., Diekmann, L., & Ossola, A. (2021). COVID-19 gardening could herald a greener, healthier future. Frontiers in Ecology and the Environment, 19(9), 491-493.
- Egerer, M., Lin, B., Kingsley, J., Marsh, P., Diekmann, L., & Ossola, A. (2022). Gardening can relieve human stress and boost nature connection during the COVID-19 pandemic. Urban Forestry & Urban Greening, 127483.
- Kingsley, K, Diekmann, L, Egerer, M., Lin, B, Ossola, A, and Marsh, P. "My garden has become our garden": Experiences of gardening during the COVID-19 pandemic. Health & Place (forthcoming)

#### Über die Autoren



Dr. Alessandro Ossola ist Professor für Stadtpflanzenkunde an der University of California Davis, USA, und Honorarforscher an der University of Melbourne und der Macquarie University, Sydney, Australien. Alessandros Forschungs- und Lehrtätigkeit umfasst verschiedene Themen wie Ökologie, Klimawandel, Forstwirtschaft, Wassermanagement, Lebensmittelproduktion, Stadtplanung und - gestaltung.



Dr. Brenda Lin ist interdisziplinäre Ökologin und leitet das Adaptive and Liveable Cities Team bei der Commonwealth Science and Industrial Research Organisation (CSIRO), der wissenschaftlichen Abteilung der australischen Regierung. Ihr Forschungsschwerpunkt liegt auf den globalen Umwelttreibern des Landschaftswandels und den daraus resultierenden Auswirkungen auf die Ökosystemleistungen, insbesondere auf die Klimaregulierung und die Auswirkungen auf die Gesundheit und das Wohlbefinden des Menschen. Ein Schwerpunkt ihrer Arbeit liegt auf städtischen Ökosystemen, wo sie die Beziehungen zwischen Vegetationsbedeckung, Umweltleistungen und menschlicher Gesundheit untersucht.



Dr. Jonathan Kingsley ist Senior Lecturer für Gesundheitsförderung (Swinburne University of Technology). Jonathan hat den größten Teil des letzten Jahrzehnts in von Aborigines kontrollierten Gesundheitsorganisationen, Regierungsbehörden, akademischen Instituten und Nichtregierungsorganisationen in ganz Australien im Bereich der öffentlichen Gesundheit und der Gemeindeentwicklung gearbeitet. Jonathan ist der Ansicht, dass unsere natürliche Umwelt für die Gesundheit von zentraler Bedeutung ist und die Fähigkeit besitzt, gesundheitliche Ungleichheiten zu überbrücken (dies ist die Grundlage seines Honours, Masters, Doktortitels und seiner früheren Position als Gastwissenschaftler an der Universität Cambridge).



Dr. Lucy Diekmann ist Beraterin für urbane Landwirtschaft und Lebensmittelsysteme an der University of California Cooperative Extension. Sie arbeitet mit gemeindebasierten Organisationen, lokalen Regierungspartnern, Netzwerken für Lebensmittelsysteme und städtischen Landwirten und Gärtnern an Forschungs- und Beratungsprojekten, um gerechtere und widerstandsfähigere städtische Lebensmittelsysteme zu schaffen.



Dr. Monika Egerer ist Professorin an der Technischen Universität München in der School of Life Sciences. In ihrer Forschung untersucht sie die Beziehungen zwischen der Erhaltung der biologischen Vielfalt, der Bereitstellung von Ökosystemleistungen und dem menschlichen Wohlbefinden in städtischen Ökosystemen, mit einem Schwerpunkt auf urbanen Gärten. Monikas Arbeit zielt darauf ab, Theorie und Praxis zu verbinden, um produktive Systeme in Städten zu schaffen, die Nahrung, Lebensraum und Gemeinschaft bieten.



Dr. Pauline Marsh ist Sozialforscherin am Centre for Rural Health an der Universität von Tasmanien, Australien. In ihrer Forschung untersucht sie, wie der Aufenthalt in der Natur unsere Lebensqualität verbessert. Ihr besonderes Interesse gilt dem therapeutischen Nutzen von Gärten und der freien Natur für Menschen mit kognitiven, emotionalen und körperlichen Gesundheitsproblemen. Sie wendet Methoden der partizipativen Aktionsforschung, des Sammelns von Geschichten und des Filmemachens an und veröffentlicht in einer Reihe von wissenschaftlichen Fachzeitschriften. Als eine ihrer größten Leistungen betrachtet sie die Mitbegründung des DIGnity Supported Community Gardening-Projekts.



Summer Cortez ist Mitglied der Community Development Graduate Group an der UC Davis. Ihre Forschungsarbeit basiert auf dem Konzept der Ernährungsgerechtigkeit und untersucht Möglichkeiten zur Verbesserung der Widerstandsfähigkeit des Lebensmittelsystems und des Zugangs zu Lebensmitteln in kalifornischen Gemeinden durch die Basis und die öffentliche Politik.

## GARTENARBEIT WÄHREND COVID-19: Berlin, Deutschland

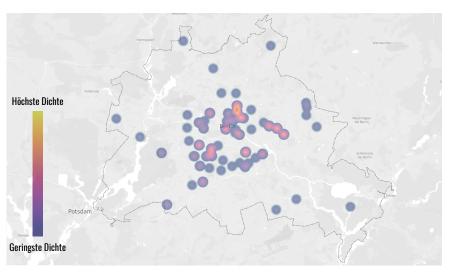


#### Beschreibung der Studie

Um zu erfahren, wie Gärtner von der Covid-19-Pandemie betroffen sind und wie sie darauf reagieren, haben wir zwischen Juni und August 2020, also während der ersten Welle der Pandemie, 3.743 Gärtner in mehreren Ländern befragt. Die Umfrage wurde über Garten-Newsletter, soziale Medien und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher:in verteilt. In Deutschland wurden viele Teilnehmer:innen über Newsletter der Deutschen Gesellschaft für Ökologie, der Deutschen Gesellschaft für Gartenkunst und Landschaftskultur e.V. und das Gartenportal der Berliner Senatsverwaltung für Umwelt, Verkehr und Klimaschutz rekrutiert. Die hier zusammengefassten Informationen spiegeln die 120 Antworten wider, die im Sommer 2020 von Gärtner:innen in Berlin eingegangen sind.

#### Wer sind die Gärtner:innen?

120 Gärtner:innen aus Berlin haben an dieser Umfrage teilgenommen. Die Antworten konzentrierten sich größtenteils auf das Zentrum Berlins, wie die Karte unten zeigt. Viele der Befragten waren erfahrene Gärtner; 40 % gärtnern seit mehr als 10 Jahren, während nur 8 % zum ersten Mal gärtnern. Im Allgemeinen waren die Gärtner weiblich (71 %) und sehr gut ausgebildet: 85 % verfügten über einen Bachelor-Abschluss oder höher. Das Alter der Gärtner reichte von 19 bis 74 Jahren, mit einem Durchschnittsalter von 45 Jahren.



#### Highlights

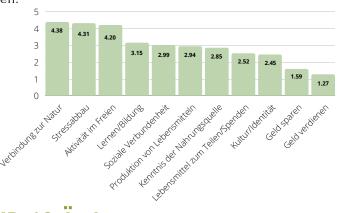
- In der Anfangsphase der Pandemie hatten die Gärtner unter anderem Schwierigkeiten, Schutzkleidung zu bekommen, Schulschließungen und den Verlust von Kinderbetreuung. Viele berichteten auch, dass sie sich isoliert, ängstlich oder deprimiert fühlten.
- In diesem Zusammenhang wurde der Garten im Freien geschätzt, weil er zum Stressabbau beiträgt und es den Gärtnern ermöglicht, in sicherer Weise mit der Natur und anderen Mitgliedern der Gemeinschaft in Kontakt zu treten.
- Die größten Veränderungen im Garten waren, dass die Gärtner mehr Zeit für die Gartenarbeit hatten und viele mehr pflanzten als in den Vorjahren. Die Gärtner berichteten, dass sie ihre Gärten nun besser pflegen und mit neuen Techniken und Pflanzen experimentieren können.
- Etwa die Hälfte der Teilnehmer gab an, während der Pandemie keine Hindernisse bei der Gartenarbeit erlebt zu haben. Für die andere Hälfte war die Beschaffung von Vorräten, z. B. Saatgut, die größte Herausforderung bei der Gartenarbeit während der Pandemie.



Viele der Teilnehmer gaben an, zu Hause im Garten (43 %) und/oder auf einem Balkon (42 %) zu gärtnern. Einundvierzig Prozent gärtnerten in einem Gemeinschaftsgarten. Die Größe der Gärten variierte, aber in der Regel handelte es sich um große Parzellen (60 %). Der Anbau von Gemüse (77 %), Kräutern (83 %), Obst (62 %) und Zierpflanzen (73 %) war weit verbreitet. Auf die Frage, wie viel ihres Bedarfs an frischen Produkten sie aus ihrem Garten decken könnten, antworteten viele (73 %) mit weniger als 10 %. Ein Fünftel antwortete mit 25 %.

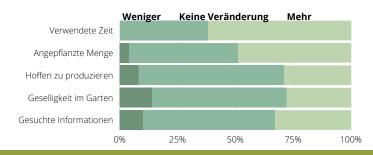
#### Der Bedeutung der Pandemiegärten

Die Gärtner wurden gebeten, die Wichtigkeit verschiedener Gründe für einen Garten während des Covid-19 auf einer Skala von 1 (nicht wichtig) bis 5 (sehr wichtig) zu bewerten. Das nachstehende Diagramm zeigt die Durchschnittswerte. Je höher die Punktzahl, desto mehr Bedeutung messen die Gärtner dem Grund bei. In Berlin schätzten die Gärtner am meisten 1) die Verbindung zur Natur, 2) Entspannung und Stressabbau, 3) körperliche Aktivität im Freien und 4) Lernen/Bildung im Freien.



## COVID-19 Änderungen

Die größte Veränderung für die meisten Gärtner war, dass sie aufgrund der Schließungsbeschränkungen mehr Zeit für den Garten hatten. Etwa die Hälfte der Gärtner pflanzte 2020 auch mehr an. Die Mehrheit der Gärtner gab jedoch an, dass sich die Menge der Produkte, die sie zu ernten hofften, die Anzahl der Kontakte im Garten und die Menge der Informationen über den Garten, die sie suchten, nicht verändert haben.



"Da ich mehr Zeit zu Hause verbringe als sonst, habe ich auch mehr Zeit für das Gärtnern und genieße dies. Ich habe gemerkt, wie gut dies tut. Daher hat sich der Wert des gärtnerns für mich erhöht."

HAUSGÄRTNERIN, WEIBLICH, 45 JAHRE, BERLIN

"COVID-19 hat meine Gedanken zu dem Wert über einen Gemeinschaftsgarten verstärkt: wir benötigen diese Räume zum Innehalten und zur Kontaktaufnahme mit der Natur."

GEMEINSCHAFTSGÄRTNERIN, WEIBLICH, 62 JAHRE, BERLIN

"Fragen der sozialen Gerechtigkeit,
Generationsfragen und fragen
nach dem essentiellem in unserem
Leben werden deutlicher und
offensichtlicher durch covid.
Allgemeine gesellschaftliche
Tendenzen werde meiner Meinung
nach offenkundig. Daher finde ich
den Garten toll um sich
auszutauschen und zusammen zu
sein, vor allem auch draußen wo
dies relativ bedenkenlos mit der
Pandemie möglich ist."

HAUSGÄRTNERIN, WEIBLICH, 27 JAHRE, BERLIN

#### **COVID-19 HERAUSFORDERUNGEN**

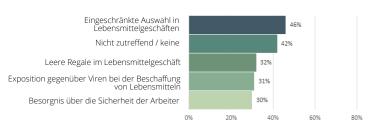
#### Persönliche Herausforderungen

Diejenigen, die aufgrund der Pandemie Schwierigkeiten hatten, fühlten sich am häufigsten isoliert, ängstlich oder deprimiert (34 %) und hatten Probleme, Schutzausrüstung zu bekommen (33 %). Viele Gärtner machten sich auch Sorgen über die Sicherheit bei der Beschaffung von Lebensmitteln im Laden während der ersten Welle der Pandemie. Im Allgemeinen waren die Gärtner in der Studie nicht von Ernährungsunsicherheit betroffen: 4 % gaben an, nicht genug Lebensmittel zu Hause zu haben oder nicht in der Lage zu sein, für Lebensmittel zu bezahlen. 13 % gaben an, seit Beginn der Pandemie weniger frische Lebensmittel zu Hause zu haben.

Die am häufigsten genannten persönlichen Schwierigkeiten während des Covid-19



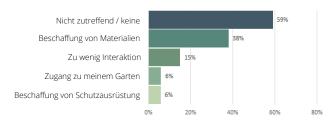
Die am häufigsten genannten Hindernisse für den Zugang zu Lebensmitteln bei COVID-19



#### Herausforderungen im Garten

Mehr als die Hälfte der Teilnehmer hatte keine Probleme bei der Gartenarbeit aufgrund der Pandemie. Für andere war die größte Herausforderung bei der Gartenarbeit während der Pandemie die Beschaffung von Vorräten (wie Saatgut und Pflanzen). Informationen über bestimmte Pflanzen, die Produktion und die Selbstversorgung waren neben der Versorgung die am häufigsten nachgefragten Formen der Unterstützung.

Die am häufigsten genannten Hindernisse für die Gartenarbeit bei COVID-19



Die häufigsten neuen Gemeinschaftsgartenregeln



Am meisten gewünschte Unterstützung für die Gartenarbeit während COVID-19





















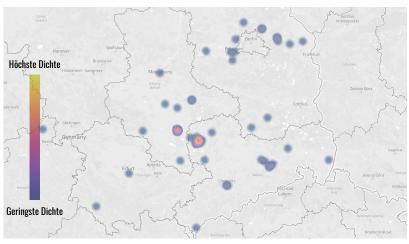
# GARTENARBEIT WÄHREND COVID-19: Ostdeutschland



Um zu erfahren, wie Gärtner von der Covid-19-Pandemie betroffen sind und wie sie darauf reagieren, haben wir zwischen Juni und August 2020, also während der ersten Welle der Pandemie, 3.743 Gärtner in mehreren Ländern befragt. Die Umfrage wurde über Garten-Newsletter, soziale Medien und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher:in verteilt. In Deutschland wurden viele Teilnehmer:innen über Newsletter der Deutschen Gesellschaft für Ökologie, der Deutschen Gesellschaft für Gartenkunst und Landschaftskultur e.V. und das Gartenportal der Berliner Senatsverwaltung für Umwelt, Verkehr und Klimaschutz rekrutiert. Die hier zusammengefassten Informationen spiegeln die 69 Antworten wider, die im Sommer 2020 von Gärtnern in Brandenburg, Sachsen-Anhalt, Sachsen und Thüringen eingegangen sind.

#### Wer sind die Gärtner:innen?

69 Gärtner:innen aus ganz Ostdeutschland haben an dieser Umfrage teilgenommen. Die Antworten waren über die östlichen Bundesländer verstreut, wobei die höchste Konzentration von Antworten in Leipzig und Halle zu verzeichnen war, wie aus der Karte hervorgeht. Viele der Teilnehmer waren erfahrene Gärtner; 52 % gärtnern seit mehr als 10 Jahren, während nur 3 % zum ersten Mal gärtnern. Im Allgemeinen waren die Gärtner weiblich (72 %) und sehr gut ausgebildet: 84 % verfügten über einen Bachelor-Abschluss oder höher. Das Alter der Gärtner reichte von 25 bis 71 Jahren, mit einem Durchschnittsalter von 47 Jahren.



#### Highlights

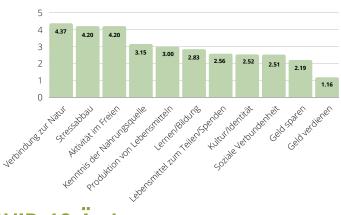
- Zu Beginn der Pandemie gehörten zu den häufigsten Stressfaktoren, die deutsche Gärtner erlebten, Schwierigkeiten bei der Beschaffung von Schutzausrüstung, Schulschließungen und der Verlust der Kinderbetreuung. Viele berichteten auch, dass sie sich isoliert, ängstlich oder deprimiert fühlten.
- In diesem Zusammenhang wurde der Garten im Freien geschätzt, weil er zum Stressabbau beiträgt und es den Gärtnern ermöglicht, in sicherer Weise mit der Natur und anderen Mitgliedern der Gemeinschaft in Kontakt zu treten.
- Die größten Veränderungen im Garten waren, dass die Gärtner mehr Zeit für die Gartenarbeit hatten und viele mehr pflanzten als in den Vorjahren.
   Die Gärtner berichteten, dass sie ihre Gärten nun besser pflegen und mit neuen Techniken und Pflanzen experimentieren können.
- Etwa die Hälfte der Teilnehmer gab an, während der Pandemie keine Hindernisse bei der Gartenarbeit erlebt zu haben. Für die andere Hälfte war die Beschaffung von Vorräten, z.
   B. Saatgut, die größte Herausforderung bei der Gartenarbeit während der Pandemie.



Viele der Teilnehmer gaben an, zu Hause im Garten (64 %) und/oder auf einem Balkon (29 %) zu gärtnern. Dreiunddreißig Prozent gärtnerten in einem Gemeinschaftsgarten. Die Größe der Gärten war unterschiedlich, aber in der Regel handelte es sich um große Parzellen (70 %). Der Anbau von Gemüse (81 %), Kräutern (91 %), Obst (80 %) und Zierpflanzen (84 %) war weit verbreitet. Auf die Frage, wie viel ihres Bedarfs an frischen Produkten sie aus ihrem Garten decken könnten, antwortete die Hälfte mit weniger als 10 %, ein Drittel mit 25 % und ein Fünftel mit 50 %.

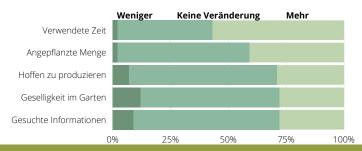
#### Der Bedeutung der Pandemiegärten

Die Gärtner wurden gebeten, die Wichtigkeit verschiedener Gründe für einen Garten während des Covid-19 zu bewerten, wobei eine Skala von 1 (nicht wichtig) bis 5 (sehr wichtig) verwendet wurde. Das nachstehende Diagramm zeigt die Durchschnittswerte. Je höher die Punktzahl, desto mehr Bedeutung messen die Gärtner dem Grund bei. In Ostdeutschland schätzten die Gärtner am meisten 1) die Verbundenheit mit der Natur, 2) Entspannung und Stressabbau, 3) körperliche Aktivität im Freien und 4) das Wissen um die eigene Nahrungsquelle.



## COVID-19 Änderungen

Die größte Veränderung für die meisten Gärtner war, dass sie aufgrund der Schließungsmaßnahmen mehr Zeit für den Garten hatten. Etwa die Hälfte der Gärtnerinnen und Gärtner pflanzte auch mehr im Jahr 2020. Die Mehrheit der Gärtner gab jedoch an, dass sich die Menge der Produkte, die sie zu ernten hofften, die Anzahl der Kontakte im Garten und die Anzahl der Informationen über den Garten, die sie suchten, nicht verändert haben.



Mir fehlt im Alltag körperliche Betätigung, Freizeit und Frischluft. Dies konnte ich jetzt neu entdecken Und möchte es künftig auch in meinen beruflichen Alltag integrieren bzw. weniger arbeiten.

HAUSGÄRTNER, WEIBLICH, 52 JAHRE, HALLE, ST

das Gärtnern war mir schon immer wichtig (v.a. Artenschutzaspekt / Biodiversität in der Stadt)

GEMEINSCHAFTSGÄRTNERIN, WEIBLICH, 60 JAHRE, Leipzig, Sn

Ich war sehr glücklich über die Möglichkeit, "sicher" nach draußen gehen zu können und hatte auch endlich Zeit, mich um meine große Dachterrasse und meinen Balkon zu kümmern. Seitdem ich mehr Arbeit in den Garten stecke und damit eine stärkere "Verbindung" zu meinen Pflanzen habe, ist der Garten noch wertvoller für mich geworden.

HAUSGÄRTNERIN, WEIBLICH, 41 JAHRE, MÜNCHEBERG, BB

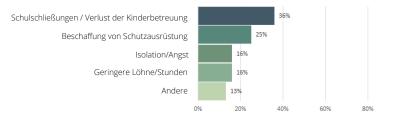
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#### **COVID-19 HERAUSFORDERUNGEN**

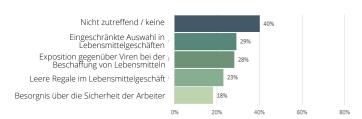
#### Persönliche Herausforderungen

Bei denjenigen, die aufgrund der Pandemie mit Schwierigkeiten zu kämpfen hatten, waren die häufigsten Probleme die Schließung von Schulen und der Verlust der Kinderbetreuung (36 %) sowie die Beschaffung von Schutzausrüstung (25 %). Im Allgemeinen waren die Gärtner in der Studie nicht von Ernährungsunsicherheit betroffen: 2 % gaben an, nicht genug Lebensmittel zu Hause zu haben oder nicht in der Lage zu sein, für Lebensmittel zu bezahlen. 15 % gaben an, seit Beginn der Pandemie weniger frische Lebensmittel zu Hause zu haben.

Die am häufigsten genannten persönlichen Schwierigkeiten während des Covid-19



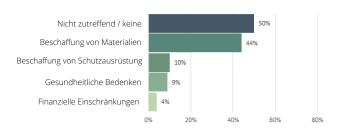
Die am häufigsten genannten Hindernisse für den Zugang zu Lebensmitteln bei COVID-19



#### Herausforderungen im Garten

Die Hälfte der Teilnehmer hatte aufgrund der Pandemie keine Probleme bei der Gartenarbeit. Für andere war die größte Herausforderung bei der Gartenarbeit während der Pandemie die Beschaffung von Vorräten (wie Saatgut und Pflanzen). Zusätzlicher Platz zum Gärtnern und Informationen über bestimmte Pflanzen und die Verbesserung der Selbstversorgung waren neben den Vorräten die am häufigsten gewünschten Formen der Unterstützung.

Die am häufigsten genannten Hindernisse für die Gartenarbeit bei COVID-19



Die häufigsten neuen Gemeinschaftsgartenregeln



Am meisten gewünschte Unterstützung für die Gartenarbeit während COVID-19





















## GARTENARBEIT WÄHREND COVID-19: Norddeutschland

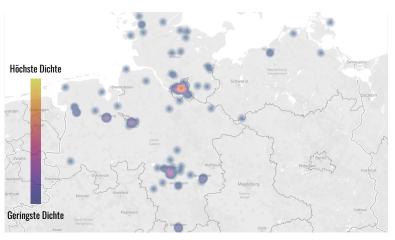


#### Beschreibung der Studie

Um zu erfahren, wie Gärtner von der Covid-19-Pandemie betroffen sind und wie sie darauf reagieren, haben wir zwischen Juni und August 2020, also während der ersten Welle der Pandemie, 3.743 Gärtner in mehreren Ländern befragt. Die Umfrage wurde über Garten-Newsletter, soziale Medien und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher:in verteilt. In Deutschland wurden viele Teilnehmer:innen über Newsletter der Deutschen Gesellschaft für Ökologie, der Deutschen Gesellschaft für Gartenkunst und Landschaftskultur e.V. und das Gartenportal der Berliner Senatsverwaltung für Umwelt, Verkehr und Klimaschutz rekrutiert. Die hier zusammengefassten Informationen spiegeln die 129 Antworten von Gärtner:innen aus Niedersachsen, Bremen, Hamburg, Schleswig-Holstein und Mecklenburg-Vorpommern wider, die im Sommer 2020 eingegangen sind.

#### Wer sind die Gärtner:innen?

129 Gärtner:innen aus ganz Norddeutschland haben an dieser Umfrage teilgenommen. Die Antworten waren über die nördlichen Bundesländer verstreut, wobei die höchste Konzentration von Antworten in Hamburg zu verzeichnen war, wie die Karte unten zeigt. Viele der Teilnehmer waren erfahrene Gärtner; 59 % gärtnern schon seit mehr als 10 Jahren, während nur 4 % zum ersten Mal gärtnern. Im Allgemeinen waren die Gärtner weiblich (72 %) und sehr gut ausgebildet: 78 % verfügten über einen Bachelor-Abschluss oder höher. Das Alter der Gärtner reichte von 25 bis 84 Jahren, mit einem Durchschnittsalter von 52 Jahren.



#### Highlights

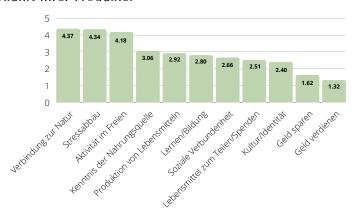
- Zu Beginn der Pandemie gehörten zu den häufigsten Stressfaktoren, die deutsche Gärtner erlebten,
   Schwierigkeiten bei der Beschaffung von Schutzausrüstung,
   Schulschließungen und der Verlust der Kinderbetreuung. Viele berichteten auch, dass sie sich isoliert, ängstlich oder deprimiert fühlten.
- In diesem Zusammenhang wurde der Garten im Freien geschätzt, weil er zum Stressabbau beiträgt und es den Gärtnern ermöglicht, in sicherer Weise mit der Natur und anderen Mitgliedern der Gemeinschaft in Kontakt zu treten.
- Die größten Veränderungen im Garten waren, dass die Gärtner mehr Zeit für die Gartenarbeit hatten und viele mehr pflanzten als in den Vorjahren. Die Gärtner berichteten, dass sie ihre Gärten nun besser pflegen und mit neuen Techniken und Pflanzen experimentieren können.
- Etwa die Hälfte der Teilnehmer gab an, während der Pandemie keine Hindernisse bei der Gartenarbeit erlebt zu haben. Für die andere Hälfte war die Beschaffung von Vorräten, z. B. Saatgut, die größte Herausforderung bei der Gartenarbeit während der Pandemie.



Viele der Teilnehmer gaben an, zu Hause im Garten (67 %) und/oder auf einem Balkon (16 %) zu gärtnern. Siebenundzwanzig Prozent gärtnerten in einem Gemeinschaftsgarten. Die Größe der Gärten war unterschiedlich, aber in der Regel handelte es sich um große Parzellen (76 %). Der Anbau von Gemüse (73 %), Kräutern (84 %), Obst (76 %) und Zierpflanzen (76 %) war weit verbreitet. Auf die Frage, wie viel ihres Bedarfs an Frischwaren sie ihrer Meinung nach aus ihrem Garten decken könnten, antwortete mehr als die Hälfte (59 %) mit weniger als 10 %. Ein Viertel antwortete mit 25 %.

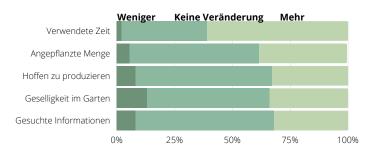
#### Der Bedeutung der Pandemiegärten

Die Gärtner wurden gebeten, die Wichtigkeit verschiedener Gründe für einen Garten während des Covid-19 auf einer Skala von 1 (nicht wichtig) bis 5 (sehr wichtig) zu bewerten. Das nachstehende Diagramm zeigt die Durchschnittswerte. Je höher die Punktzahl, desto mehr Bedeutung messen die Gärtner dem Grund bei. In Norddeutschland schätzten die Gärtner am meisten 1) die Verbindung zur Natur, 2) Entspannung und Stressabbau, 3) körperliche Betätigung im Freien und 4) die Kenntnis der Herkunft ihrer Produkte.



## COVID-19 Änderungen

Die größte Veränderung für die meisten Gärtner bestand darin, dass sie aufgrund der Schließung mehr Zeit für den Garten hatten. Die Mehrheit der Gärtner gab jedoch an, dass sich die Menge der angepflanzten Pflanzen, die Menge der Produkte, die sie zu ernten hofften, die Anzahl der Kontakte im Garten und die Anzahl der Informationen über den Garten, die sie suchten, nicht verändert haben.



Aus einem Muss der gewissen Gartenpflege ist Freunde geworden: Kreativität wird gefördert, Bewegung an der frischen Luft, Erfolgserlebnisse werden genossen, die sichere Begegnung mit Freunden, Familie und Nachbarn in kleinsten Kreisen war möglich im Garten.

HAUSGÄRTNERIN, WEIBLICH, 66 JAHRE, HEMMINGEN, NI

"Mir ist die Wichtigkeit umweltschonender und regional erzeugter Lebensmittel noch einmal bewusster geworden."

HAUSGÄRTNERIN, WEIBLICH, 46 JAHRE, HAMBURG, HH

"Gärten und Grünflächen sind sehr wichtig in Städten, tragen zur Erholung und Entspannung bei und sollten mehr gefördert werden."

HAUSGÄRTNERIN, WEIBLICH, 30 JAHRE, HUSUM, SH

NORDDEUTSCHLAND PAGE 73

#### **COVID-19 HERAUSFORDERUNGEN**

#### Persönliche Herausforderungen

Bei denjenigen, die aufgrund der Pandemie mit Schwierigkeiten zu kämpfen hatten, waren die häufigsten Probleme die Beschaffung von Schutzausrüstung (23 %) und reduzierte Löhne oder Arbeitszeiten (20 %). Im Allgemeinen waren die Gärtner in der Studie nicht von Ernährungsunsicherheit betroffen: 2 % gaben an, nicht genug Lebensmittel zu Hause zu haben oder nicht in der Lage zu sein, für Lebensmittel zu bezahlen. 9 % gaben an, seit Beginn der Pandemie weniger frische Lebensmittel zu Hause zu haben.

#### Die am häufigsten genannten persönlichen Schwierigkeiten während des Covid-19



#### Die am häufigsten genannten Hindernisse für den Zugang zu Lebensmitteln bei COVID-19



#### Herausforderungen im Garten

Mehr als die Hälfte der Teilnehmer hatte keine Probleme bei der Gartenarbeit aufgrund der Pandemie. Für andere war die größte Herausforderung bei der Gartenarbeit während der Pandemie die Beschaffung von Vorräten (wie Saatgut und Pflanzen). Zusätzlicher Platz für die Gartenarbeit und kulturspezifische Informationen waren neben der Beschaffung von Material die am häufigsten gewünschten Formen der Unterstützung.

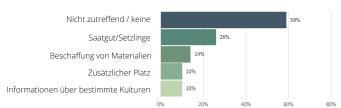
#### Die am häufigsten genannten Hindernisse für die Gartenarbeit bei COVID-19



#### Die häufigsten neuen Gemeinschaftsgartenregeln



#### Am meisten gewünschte Unterstützung für die Gartenarbeit während COVID-19





















## GARTENARBEIT WÄHREND COVID-19: Süd Deutschland

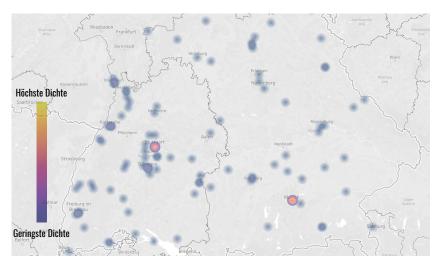


#### Beschreibung der Studie

Um zu erfahren, wie Gärtner von der Covid-19-Pandemie betroffen sind und wie sie darauf reagieren, haben wir zwischen Juni und August 2020, also während der ersten Welle der Pandemie, 3.743 Gärtner in mehreren Ländern befragt. Die Umfrage wurde über Garten-Newsletter, soziale Medien und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher:in verteilt. In Deutschland wurden viele Teilnehmer:innen über Newsletter der Deutschen Gesellschaft für Ökologie, der Deutschen Gesellschaft für Gartenkunst und Landschaftskultur e.V. und das Gartenportal der Berliner Senatsverwaltung für Umwelt, Verkehr und Klimaschutz rekrutiert. Die hier zusammengefassten Informationen spiegeln die 139 Antworten wider, die im Sommer 2020 von Gärtner:innen in Bayern und Baden-Württemberg eingegangen sind.

#### Wer sind die Gärtner:innen?

139 Gärtner:innen aus Süddeutschland haben an dieser Umfrage teilgenommen. Die Antworten konzentrierten sich vor allem auf Stuttgart und München, wie die Karte unten zeigt. Viele Teilnehmern waren erfahrene Gärtner; 63 % gärtnern seit mehr als 10 Jahren, während nur 4 % zum ersten Mal gärtnern. Im Allgemeinen waren die Gärtner weiblich (72 %) und sehr gut ausgebildet: 79 % verfügten über einen Bachelor-Abschluss oder höher. Das Alter der Gärtner reichte von 21 bis 79 Jahren, mit einem Durchschnittsalter von 50 Jahren.



#### Highlights

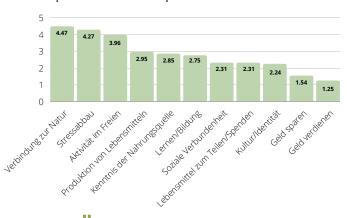
- Zu Beginn der Pandemie gehörten zu den häufigsten Stressfaktoren, die deutsche Gärtner erlebten,
   Schwierigkeiten bei der Beschaffung von Schutzausrüstung,
   Schulschließungen und der Verlust der Kinderbetreuung. Viele berichteten auch, dass sie sich isoliert, ängstlich oder deprimiert fühlten.
- In diesem Zusammenhang wurde der Garten im Freien geschätzt, weil er zum Stressabbau beiträgt und es den Gärtnern ermöglicht, in sicherer Weise mit der Natur und anderen Mitgliedern der Gemeinschaft in Kontakt zu treten.
- Die größten Veränderungen im Garten waren, dass die Gärtner mehr Zeit für die Gartenarbeit hatten und viele mehr pflanzten als in den Vorjahren. Die Gärtner berichteten, dass sie ihre Gärten nun besser pflegen und mit neuen Techniken und Pflanzen experimentieren können.
- Etwa die Hälfte der Teilnehmer gab an, während der Pandemie keine Hindernisse bei der Gartenarbeit erlebt zu haben. Für die andere Hälfte war die Beschaffung von Vorräten, z. B. Saatgut, die größte Herausforderung bei der Gartenarbeit während der Pandemie.



Viele der Teilnehmer gaben an, zu Hause im Garten (73 %) und/oder auf einem Balkon (23 %) zu gärtnern. Zehn Prozent gärtnerten in einem Gemeinschaftsgarten. Ihre Gärten waren häufig so groß wie ein oder zwei Hochbeete (24 %) oder nahmen einen großen Teil ihres Gartens ein (45 %). Der Anbau von Gemüse (73 %), Kräutern (86 %), Obst (58 %) und Zierpflanzen (71 %) war weit verbreitet. Auf die Frage, wie viel ihres Bedarfs an frischen Produkten sie aus ihrem Garten decken könnten, antworteten viele (65 %) mit weniger als 10 %. Ein Fünftel antwortete mit 25 %.

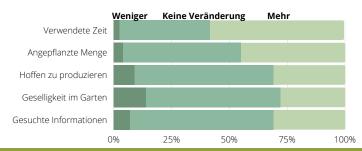
#### Der Bedeutung der Pandemiegärten

Die Gärtner wurden gebeten, die Wichtigkeit verschiedener Gründe für einen Garten während des Covid-19 auf einer Skala von 1 (nicht wichtig) bis 5 (sehr wichtig) zu bewerten. Das nachstehende Diagramm zeigt die Durchschnittswerte. Je höher die Punktzahl, desto mehr Bedeutung messen die Gärtner dem Grund bei. In Süddeutschland schätzten die Gärtner am meisten 1) die Verbundenheit mit der Natur, 2) Entspannung und Stressabbau, 3) körperliche Aktivität im Freien und 4) Lebensmittelproduktion und -qualität.



## COVID-19 Änderungen

Die größte Veränderung für die meisten Gärtner war, dass sie aufgrund der Schließungsbeschränkungen mehr Zeit für den Garten hatten. Etwa die Hälfte der Gärtner pflanzte 2020 auch mehr an. Die Mehrheit der Gärtner gab jedoch an, dass sich die Menge der Produkte, die sie zu ernten hofften, die Anzahl der Kontakte im Garten und die Menge der Informationen über den Garten, die sie suchten, nicht verändert haben.



"Ja, ich liebe meinen Garten schon immer, aber jetzt ist mir nochmal mehr bewusst welcher Luxus es ist einen zu haben."

HAUSGÄRTNERIN, WEIBLICH, 36 JAHRE, MÜNCHEN, BY

"Ich denke und handle schon immer so. Das Einzige, was sich geändert hat ist, dass ich mehr gefragt werde und mehr Wissen weitergebe."

GEMEINSCHAFTSGÄRTNERIN, WEIBLICH, 55 JAHRE, OSTRINGEN, BW

"Ich habe den Garten jeden Tag als priviligiertes Geschenk empfunden."

HAUSGARTNER, WEIBLICH, 45 JAHRE, FREIBURG, BW

SÜDDEUTSCHLAND PAGE 76

#### **COVID-19 HERAUSFORDERUNGEN**

#### Persönliche Herausforderungen

Bei denjenigen, die aufgrund der Pandemie mit Schwierigkeiten zu kämpfen hatten, waren die häufigsten Probleme die Schließung von Schulen und der Verlust von Kinderbetreuung (26 %) sowie das Gefühl der Isolation, Angst oder Depression (34 %). Viele Gärtner machten sich auch Sorgen über die Sicherheit der

Lebensmittelbeschaffung im Laden während der ersten Welle der Pandemie. Im Allgemeinen waren die Gärtner in der Studie nicht von Ernährungsunsicherheit betroffen: 0 % gaben an, nicht genug Lebensmittel zu Hause zu haben oder nicht in der Lage zu sein, für Lebensmittel zu bezahlen. 6 % gaben an, seit Beginn der Pandemie weniger frische Lebensmittel zu Hause zu haben.

Die am häufigsten genannten persönlichen Schwierigkeiten während des Covid-19



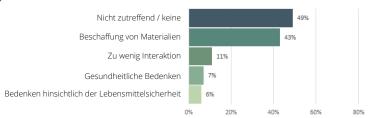
Die am häufigsten genannten Hindernisse für den Zugang zu Lebensmitteln bei COVID-19



#### Herausforderungen im Garten

Die Hälfte der Teilnehmer hatte aufgrund der Pandemie keine Probleme bei der Gartenarbeit. Für andere war die größte Herausforderung bei der Gartenarbeit während der Pandemie die Beschaffung von Vorräten (wie Saatgut und Pflanzen). Abgesehen von den Vorräten waren Informationen über bestimmte Pflanzen und die Selbstversorgung die am häufigsten gewünschten Formen der Unterstützung.

Die am häufigsten genannten Hindernisse für die Gartenarbeit bei COVID-19



Die häufigsten neuen Gemeinschaftsgartenregeln



Am meisten gewünschte Unterstützung für die Gartenarbeit während COVID-19



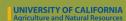


















## GARTENARBEIT WÄHREND COVID-19: Westdeutschland

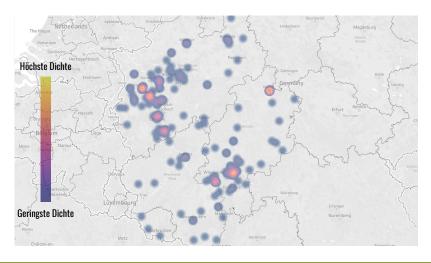


#### Beschreibung der Studie

Um zu erfahren, wie Gärtner von der Covid-19-Pandemie betroffen sind und wie sie darauf reagieren, haben wir zwischen Juni und August 2020, also während der ersten Welle der Pandemie, 3.743 Gärtner in mehreren Ländern befragt. Die Umfrage wurde über Garten-Newsletter, soziale Medien und gezielte E-Mails an Gärtnergruppen in den Heimatländern der Forscher:in verteilt. In Deutschland wurden viele Teilnehmer:innen über Newsletter der Deutschen Gesellschaft für Ökologie, der Deutschen Gesellschaft für Gartenkunst und Landschaftskultur e.V. und das Gartenportal der Berliner Senatsverwaltung für Umwelt, Verkehr und Klimaschutz rekrutiert. Die hier zusammengefassten Informationen spiegeln die 213 Antworten wider, die im Sommer 2020 von Gärtner:innen im Saarland, in Rheinland-Pfalz, Hessen und Nordrhein-Westfalen eingegangen sind.

#### Wer sind die Gärtner:innen?

213 Gärtner:innen aus ganz Westdeutschland haben an dieser Umfrage teilgenommen. Die Antworten waren weit über die westlichen Bundesländer verstreut, wie die Karte unten zeigt. Viele der Teilnehmer waren erfahrene Gärtner; 63 % gärtnern bereits seit mehr als 10 Jahren, während nur 4 % zum ersten Mal gärtnern. Im Allgemeinen waren die Gärtner weiblich (71 %) und sehr gut ausgebildet: 81 % verfügten über einen Bachelor-Abschluss oder höher. Das Alter der Gärtner reichte von 25 bis 80 Jahren, mit einem Durchschnittsalter von 51 Jahren.



#### Highlights

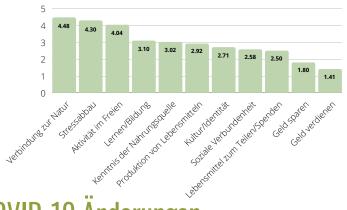
- Zu Beginn der Pandemie gehörten zu den häufigsten Stressfaktoren, die deutsche Gärtner erlebten,
   Schwierigkeiten bei der Beschaffung von Schutzausrüstung,
   Schulschließungen und der Verlust der Kinderbetreuung. Viele berichteten auch, dass sie sich isoliert, ängstlich oder deprimiert fühlten.
- In diesem Zusammenhang wurde der Garten im Freien geschätzt, weil er zum Stressabbau beiträgt und es den Gärtnern ermöglicht, in sicherer Weise mit der Natur und anderen Mitgliedern der Gemeinschaft in Kontakt zu treten.
- Die größten Veränderungen im Garten waren, dass die Gärtner mehr Zeit für die Gartenarbeit hatten und viele mehr pflanzten als in den Vorjahren. Die Gärtner berichteten, dass sie ihre Gärten nun besser pflegen und mit neuen Techniken und Pflanzen experimentieren können.
- Etwa die Hälfte der Teilnehmer gab an, während der Pandemie keine Hindernisse bei der Gartenarbeit erlebt zu haben. Für die andere Hälfte war die Beschaffung von Vorräten, z. B. Saatgut, die größte Herausforderung bei der Gartenarbeit während der Pandemie.



Viele der Teilnehmer gaben an, zu Hause im Garten (82 %) und/oder auf einem Balkon (17 %) zu gärtnern. Vierzehn Prozent gärtnerten in einem Gemeinschaftsgarten. Die Größe der Gärten variierte, aber in der Regel handelte es sich um große Grundstücke (74 %). Der Anbau von Gemüse (65 %), Kräutern (85 %), Obst (65 %) und Zierpflanzen (70 %) war weit verbreitet. Auf die Frage, wie viel ihres Bedarfs an frischen Produkten sie aus ihrem Garten decken könnten, antworteten viele (65 %) mit weniger als 10 %. Ein Viertel antwortete mit 25 %.

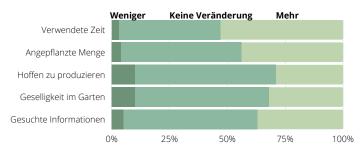
#### Der Bedeutung der Pandemiegärten

Die Gärtner wurden gebeten, die Wichtigkeit verschiedener Gründe für einen Garten während des Covid-19 auf einer Skala von 1 (nicht wichtig) bis 5 (sehr wichtig) zu bewerten. Das nachstehende Diagramm zeigt die Durchschnittswerte. Je höher die Punktzahl, desto mehr Bedeutung messen die Gärtner dem Grund bei. In Westdeutschland schätzten die Gärtner am meisten 1) die Verbindung zur Natur, 2) Entspannung und Stressabbau, 3) körperliche Aktivität im Freien und 4) Lernen/Bildung im Freien.



## COVID-19 Änderungen

Die größte Veränderung für die meisten Gärtner war, dass sie aufgrund der Schließungsbeschränkungen mehr Zeit für den Garten hatten. Etwa die Hälfte der Gärtner pflanzte 2020 auch mehr an. Die Mehrheit der Gärtner gab jedoch an, dass sich die Menge der Produkte, die sie zu ernten hofften, die Anzahl der Kontakte im Garten und die Menge der Informationen über den Garten, die sie suchten, nicht verändert haben.



"Der Wert eines eigenen Gartens und der Selbstversorgung ist mir stärker bewusst geworden."

SCHULGÄRTNERIN, WEIBLICH, 45 JAHRE, BONN, NW

"Ich weiß den Garten jetzt noch mehr zu schätzen. Stressfreiheit. Ruhe. Ablenkung."

HAUSGÄRTNER, WEIBLICH, 55 JAHRE, BIELEFELD, NW

"Ich habe den Wert eines eigenen Gartens neu schätzen gelernt. Natürlich konnten wir uns auch während der Kontaktbeschränkungen im freien bewegen, im eigenen Garten war das allerdings sorgloser möglich, da ich nicht immer darauf achten musste, ob Passanten den Abstand wahren."

HAUSGÄRTNER, WEIBLICH, 34 JAHRE, MAINZ, RP

WESTDEUTSCHLAND PAGE 79

#### **COVID-19 HERAUSFORDERUNGEN**

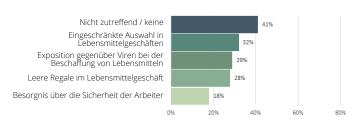
#### Persönliche Herausforderungen

Bei denjenigen, die aufgrund der Pandemie mit Schwierigkeiten zu kämpfen hatten, waren die häufigsten Probleme die Beschaffung von Schutzausrüstung (33 %) und der Umgang mit Schulschließungen und dem Verlust der Kinderbetreuung (29 %). Im Allgemeinen waren die Gärtner in der Studie nicht von Ernährungsunsicherheit betroffen: 1 % gab an, nicht genug Lebensmittel zu Hause zu haben oder nicht in der Lage zu sein, für Lebensmittel zu bezahlen. 13 % gaben an, seit Beginn der Pandemie weniger frische Lebensmittel zu Hause zu haben.

Die am häufigsten genannten persönlichen Schwierigkeiten während des Covid-19



Die am häufigsten genannten Hindernisse für den Zugang zu Lebensmitteln bei COVID-19



#### Herausforderungen im Garten

Mehr als die Hälfte der Teilnehmer hatte aufgrund der Pandemie keine Probleme bei der Gartenarbeit. Für andere war die größte Herausforderung bei der Gartenarbeit während der Pandemie die Beschaffung von Vorräten (wie Samen und Pflanzen). Eine bessere Internetverbindung und die Verfügbarkeit von Übersetzungsdiensten waren neben der Beschaffung von Hilfsgütern die am häufigsten gewünschten Formen der Unterstützung.

Die am häufigsten genannten Hindernisse für die Gartenarbeit bei COVID-19



Die häufigsten neuen Gemeinschaftsgartenregeln



Am meisten gewünschte Unterstützung für die Gartenarbeit während COVID-19



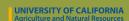


















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