



Agricultural Marketing Service

U.S. DEPARTMENT OF AGRICULTURE

AWARD YEARS 2021 AND PRIOR

This annual Performance Progress Report (PPR) must illustrate the progress made toward the completion of your project. If this project is completed at the time of the annual PPR submission, the project report should be marked as final. Please note character limits (abbreviated "char.") throughout.

PROJECT INFORMATION

Project Title (250 char.)	Increasing Capacity for High Tunnel Research and Education in South Dakota to Continue Improving Specialty Crop Production
Organization Name (250 char.)	South Dakota State University
Project Start Date	3/1/22
Project End Date	9/29/25

ORGANIZATION POINT OF CONTACT

Full Name	Kristine Lang
Phone Number	605-688-5796
Email Address	Kristine.Lang@sdstate.edu

BACKGROUND INFORMATION

PROJECT PROGRESS

Please provide the total percentage of work completed on the project.	100
Is this a final report? Please select the box to the right if the answer is "yes".	☐

PROJECT BACKGROUND (REQUIRED FOR FINAL REPORTS)

Provide enough information for the reader to understand the importance or context of the project and any key findings. This section may draw from the background and justification contained in the accepted project plan. As the project has been completed, write this section in past tense. If this is an annual report, please skip this section. (1200 char.)

This project has become a flagship project the the SDSU Extension Local Food and Flower program. Over 500 people have been directly impacted by this project. The most visible project impact was the assembly of two high tunnels on the South Dakota State University campus in Brookings, but the entire process of construction was documented and all lessons learned were presented through webinars, regional and out of state workshops, and videos. One of the most significant activities was a four-part hands-on workshop in May 2024 where attendees actively engaged in the start to finish build of a high tunnel. At least 3 attendees of that workshop have gone on to build and/or advise the construction of additional high tunnels within their own regions of South Dakota. The high tunnels have been featured annually for the SDSU Extension Specialty Crop Field Days, and the quality and quantity of high tunnel education within the state has been greatly enhanced as a direct result of this project.

OBJECTIVE(S) (REQUIRED)

Please provide the approved project's objectives from the accepted project plan. Use the boxes to indicate if the objective is in progress, has been completed, or is not (and will not be) completed. At the final report, if "no" is selected for any of the listed objectives, you must expand upon this in the Challenges and Developments Section. Additional objectives may be added as needed.

+	#	Objective (2,000 char.)	Objective Completed?
-	1	Demonstrate and document current practices for site planning, assembly, and management of high tunnels for specialty crop production in South Dakota.	Yes
-	2	Train beginning and experienced specialty crop producers and agricultural service providers on current high tunnel site planning, assembly and research-based management techniques through hands-on, on-site workshops and field days, state and regional presentations, and print and digital media.	Yes
-	3	Collaborate with food and flower specialty crop producers as advisors to set priorities for future high tunnel production research to tackle emerging issues to increase South Dakota specialty crop production capacity through the next decade.	Yes
-	4	Engage students, educators, and consumers in educational activities and digital media to increase awareness of the South Dakota specialty crop industry and farm to school initiatives.	Yes

OUTCOMES

Please only report on the outcomes and indicators that are selected and approved for this project. Use the check boxes to indicate which outcomes and indicators are selected. Select the "N/A" box for any indicators that are not applicable.

1. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH INCREASED SALES

☐

2. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH INCREASED CONSUMPTION

☐

3. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH INCREASED ACCESS AND AWARENESS

☒

Please provide the total number of consumers or wholesale buyers who access/produce/prepare/preserve specialty crops and select the applicable indicators for this reporting period.

Indicators	Value	N/A
1. Total number of consumers or wholesale buyers reached	550	☐

Indicators	Value	N/A
1.a. Of the total number in 1, enter the number that gained knowledge on how to access/produce/prepare/preserve specialty crops	295	☐
1.b. Of the total number in 1, enter the number that reported an intention to access/produce/prepare/preserve specialty crops		☒
1.c. Of the total number in 1, enter the number that reported supplementing their diets with specialty crops that they produced/preserved/obtained/prepared		☒

Please provide the total number of individuals reached and select the applicable indicators for this reporting period.

Indicators	Value	N/A
2. Total number of individuals reached		☒
2.a. Of the total number in 2, enter the number of adults that gained knowledge on how to access/produce/prepare/preserve specialty crops		☒
2.b. Of the total number in 2, enter the number that reported an intention to access/produce/prepare/preserve specialty crops		☒
2.c. Of the total number in 2, enter the number that reported supplementing their diets with specialty crops that they produced/prepared/preserved/obtained		☒

Please select the applicable indicators from the list and provide data on applicable existing delivery systems/access points of those reached that expanded and/or improved offerings of specialty crops for this reporting period.

Indicators	Value	N/A
3.a. Farmers markets		☒
3.b. Produce at corner stores		☒
3.c. School food programs and other food options (vending machines, school events, etc.)		☒
3.d. Grocery stores		☒
3.e. Wholesale markets		☒
3.f. Food hubs that process, aggregate, distribute, or store specialty crops		☒
3.g. Home improvement centers with lawn and garden		☒
3.h. Lawn and garden centers		☒
3.i. Other systems/access points, not noted		☒
3.j. Total (if not reported above)		☒

Please select the applicable indicators from the list and provide data on applicable **new** existing delivery systems/access points offering specialty crops for this reporting period.

Indicators	Value	N/A
4.a. Farmers markets		☒
4.b. Produce at corner stores		☒
4.c. School food programs and other food options (vending machines, school events, etc.)		☒
4.d. Grocery stores		☒

Indicators	Value	N/A
4.e. Wholesale markets		☒
4.f. Food hubs that process, aggregate, distribute, or store specialty crops		☒
4.g. Home improvement centers with lawn and garden		☒
4.h. Lawn and garden centers		☒
4.i. Other systems/access points, not noted		☒
4.j. Total (if not reported above)		☒

4. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH GREATER CAPACITY OF SUSTAINABLE PRACTICES OF SPECIALTY CROP PRODUCTION RESULTING IN INCREASED YIELD, REDUCED INPUTS, INCREASED EFFICIENCY, INCREASED ECONOMIC RETURN, AND/OR CONSERVATION OF RESOURCES



Please provide the numbers of plant/seed releases (e.g., cultivars, drought-tolerant plants, organic, enhanced nutritional composition, etc.) for this reporting period.

Indicators	Value	N/A
1. Number of plant/seed releases		☒

Please select the applicable indicators and provide data for the adoption of best practices and technologies resulting in increased yields, reduced inputs, increased efficiency, increased economic return, and conservation of resources for this reporting period.

Indicators	Value	N/A
2.a. Number of growers/producers indicating adoption of recommended practices	206	☐
2.b. Number of growers/producers reporting reduction in pesticides, fertilizers, water used/acres		☒
2.c. Number of producers reporting increased dollar returns per acre or reduced costs per acre		☒
2.d. Number of acres in conservation tillage or acres in other best management practices		☒

Please provide the total number of adults reached and select the applicable indicators for this reporting period.

Indicators	Value	N/A
3. Number of habitat acres established and maintained for the mutual benefit of pollinators and specialty crops		☒

5. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH MORE SUSTAINABLE, DIVERSE, AND RESILIENT SPECIALTY CROP SYSTEMS



Please provide data for the applicable indicators for this reporting period.

Indicators	Value	N/A
1. Number of new or improved innovation models (biological, economic, business, management, etc.), technologies, networks, products, processes, etc. developed for specialty crop entities including producers, processors, distributors, etc.		☒
2. Number of innovations adopted		☒

Indicators	Value	N/A
3. Number of specialty crop growers/producers (and other members of the specialty crop supply chain) that have increased revenue expressed in dollars		☒
4. Number of new diagnostic systems analyzing specialty crop pests and diseases		☒
5. Number of new diagnostic technologies available for detecting plant pests and diseases		☒
6. Number of first responders trained in early detection and rapid response to combat plant pests and diseases		☒
7. Number of viable technologies/processes developed or modified that will increase specialty crop distribution and/or production		☒
8. Number of growers/producers that gained knowledge about science-based tools through outreach and education programs	374	☐

6. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH INCREASING THE NUMBER OF VIABLE TECHNOLOGIES TO IMPROVE FOOD SAFETY ☐

7. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH INCREASED UNDERSTANDING OF THREATS TO FOOD SAFETY FROM MICROBIAL AND CHEMICAL SOURCES ☐

8. ENHANCE THE COMPETITIVENESS OF SPECIALTY CROPS THROUGH ENHANCING OR IMPROVING THE ECONOMY AS A RESULT OF SPECIALTY CROP DEVELOPMENT ☐

ADDITIONAL APPROVED OUTCOME (IF APPLICABLE) ☐

OUTCOME REMARKS (REQUIRED)

Please explain any quantifiable results, along with an update on their progress and data collection efforts for each of the outcomes and indicators selected in the accepted project plan. It is understood that the results may not yet be final at the time that this report is submitted; however, please provide an update on progress to date. If you do not have any data on the indicator(s) listed above, you must explain why in this section. (2,000 char.)

2022: No outcomes achieved

2023: Data for all three outcomes/indicators was collected via educational activity registration and post-event evaluations that assessed knowledge gain and intention to change on-farm practices.

2024 and 2025: Data for all three outcomes/indicators was collected via educational activity registration (online and via paper forms) which was used to determine number of producers, technical providers, students, consumers, and educators.

Progress on knowledge gain and intent to adopt was measured using questions on post-event evaluations (paper postcards handed out to participants and/or links to a virtual evaluation) (3.1a; 4.2a; 5.8).

Example questions include:

How many new things did you learn because of what you saw and heard today?

Will you try something new on your farm or in your business because of what you saw or heard today?

Additional quantitative questions were used to get a deeper understanding of trainee confidence in their new skills and their willingness to share what they learned with others in their sphere of influence.

Evaluation completion rates ranged from 40-75% of the total attendees for each event. Details of ALL 2024 and 2025 activities that contributed to these metrics are detailed in the Accomplishments section.

Attendees could also include qualitative feedback which was used to tailor future grant outreach and education and inform future research per Objective 3 of the project.

NARRATIVE

ACCOMPLISHMENTS (REQUIRED)

If this is an annual report, list your accomplishments for this reporting period. If this is a final report, your accomplishments should be cumulative and include all accomplishments previously reported on and updated to include activities conducted this past reporting period. Indicate how these accomplishments associated with each of your project's objective(s), outcome(s), and/or indicator(s). This listing should identify your project's partners and their contributions. Additional accomplishments can be added as needed.

+	#	Accomplishment (1,200 char.)	Related to (Objective/ Outcome)
-	1	2022: Tanner Aiken, SDSU Facilities, submitted project plan to SDSU presidential office for approval routing by SD Board of Regents (BOR).	Objective 1
-	2	2022: Kristine Lang traveled to Kansas State University's Olathe research location to document high tunnel best practices and engage with regional high tunnel expert, Dr. Cary Rivard.	Objective 2
-	3	2022: Kristine Lang visited with SD specialty crop producers throughout the growing season to gain producer feedback about high tunnel construction and to gauge producer needs.	Objective 3
-	4	Summer-Fall 2023. First of two high tunnels successfully assembled by K. Lang, SDSU Facilities (5 staff), and support of two farmer experts from SD and ND. SDSU undergraduate (3) and graduate students (3) were also trained in high tunnel assembly aspects. The project team documented lessons learned in writing, photos, and video, to apply knowledge gain to the assembly of the second high tunnel; lessons learned also used for project outreach.	Objectives 1 and 3
-	5	Summer-Fall 2023. Outreach on high tunnel assembly achieved through four key events: High tunnel tour and presentation for SDSU Local Food Production class (24 students); Tour of high tunnel for 3rd annual SDSU Specialty Crop Field Day (84 farmers, students, technical service providers, and consumers); Presentation titled "So, you want to build a high tunnel!?" delivered to current and aspiring cut flower farmers (25) and current and aspiring fruit and vegetable farmers (8). Additionally, project findings were highlighted at the first ever South Dakota High Tunnel Short Course which was held in October 2023 with funding from a NCR SARE PDP grant.	Objectives 2 and 4
-	6	2024: Kristine Lang joined a multi-state team to plan and present on climate-smart adaptations for organic vegetable farmers; she presented on heat-related challenges within high tunnels and construction modifications that can be used to alleviate these stresses. After multiple presentations on farming and high tunnel management, the team facilitated a listening session with 85 farmers and technical service providers (from SD, WI, MN, IA, ND, MI, and beyond) to prioritize regional farming needs including priority setting for high tunnel research and education. February 22, 2024, La Crosse, WI	Objs 2 and 3; Outcome 4.2a Objs 2 and 3 Outcome 5.8
-	7	2024: Kristine Lang highlighted South Dakota an emerging specialty crop leader in two national invited presentations where she highlighted the high tunnel build and educational process to over approximately 50 faculty and extension peers in Indiana and Iowa. March 28, 2024 Purdue University and April 22, 2024 Iowa State University.	Obj 2 Outcome 5.8
-	8	2024: From October 2023-May 2024 the SDSU Facilities team, Kristine Lang, SDSU students, and farmer contractors Collin Awarter and Darin Waldner had completed the first of two high tunnels. This high tunnel process was used to train the entire project team, engage the community, and promote all high tunnel education which followed.	Obj 1 Outcome 4.2a

-	9	2024: Kristine Lang, Tanner Aiken, SDSU Facilities, and three farmer trainers (Darin Walder, Shannon Mutschelknaus, and Dirk Oudman) led a four-part high tunnel assembly workshop providing 7 hours x 4 days = 28 hours of education to 95 attendees including current farmers, beginning/considering farmers, tribal members, technical service providers, and SDSU students. The event was split into two weeks with learning outcomes and activities advertised and executed as follows on May 7, 8, 14, and 16, 2024: Participants will assemble high tunnel trusses and erect them on pre-placed ground posts. Teams will learn how to install and secure bows/trusses to ground posts, attach purlins between trusses, and reinforce the high tunnel with cross bracing. Installation of wiggle wire channels, baseboards, and a polycarbonate end wall will begin. Participants will continue the progress made in week one plastic will be pulled over the high tunnel frame. If/once plastic is pulled over the structure everyone will learn how to secure plastic with wiggle wire and how to install roll-up sides with motors, and how to properly install the inflation fan.	Objs 1, 2, and 3 Outcome 4.2a; Objs 2 and 3 Outcome 5.8 Obj 4 Outcome 3.1a
-	10	2024: The SDSU Extension Educational Technology team worked closely with Kristine Lang to feature the high tunnel construction process and May 2024 workshops prior to, and after the event. Coverage included the following outlets with estimated reach included in (brackets): https://www.morningagclips.com/sdsu-extension-hosts-hands-on-high-tunnel-build-experience/ (27,150 readers) https://www.agweek.com/crops/sdsu-looks-to-educate-a-growing-number-of-high-tunnel-enthusiasts (40,405 readers) https://extension.sdstate.edu/news/dakota-food-rx-and-high-tunnel-research-support-local-producers (30,865 readers) *Note: these totals are not included in outcome reporting to avoid skewing the data*	Obj 2 Outcome 5.8 Obj 4 Outcome 3.1a
-	11	2024: Kristine Lang collaborated with the SD Department of Education and SDSU Extension Farm to School to host 27 SD teachers, food service providers, and food procurement leaders for an in-depth tour of the newly constructed high tunnels. This fulfilled the proposed Farm to School High Tunnel Workshop. Lang and the SD Department of Education engaged attendees in a discussion of how high tunnels can be used to extend the growing season and create more purchasing opportunities for SD schools. An external media company worked with Lang and SDDOE to create a short video highlighting specialty crop research, high tunnels, and the connections to Farm to School for the state. This public video has received 151 views: https://youtu.be/GasWhaGUKfc?si=eff2Tiq-XqHo4d5Y . June 12, 2024 *Note: Video views are not included in outcome reporting to avoid skewing data*	Obj 4 Outcome 3.1a
-	12	2024: Kristine Lang hosted additional tours and small-group high tunnel education sessions for consumers, beginning farmers, and tribal members as follows: July 25, 2024: Hosted 28 Minnahaha Master Gardener Volunteers and trained them on basic high tunnel knowledge August 9, 2024: Coached 4 potential high tunnel owners who came from Sisseton Wapeton College	Objs 1 and 2 Outcomes 4.2 Objs 1 and 2 5.8 Obj 4 Outcome 3.1a
-	13	2024: Kristine Lang, SDSU Extension, and SDSU Facilities collaborated to host the 4th annual SDSU Extension Specialty Crop Field Day on September 10, 2024. Attendance was 95 people including farmers, technical service providers, SDSU students, tribal members, and home gardeners. During the event attendees were welcome to tour both high tunnels at their leisure. A formal presentation entitled "What we did and what we would do differently" Q&A was co-facilitated by with Kristine Lang, Tanner Aiken, Darin Waldner, and Shannon Mutschelknaus facilitating a discussion for 45 engaged attendees of the field day.	Objs 1 and 2 Outcomes 4.2a Objs 1 and 2 5.8 Obj 4 Outcome 3.1a
-	14	2024: From May through October 2024, Kristine Lang, Tanner Aiken, and SDSU Facilities worked to complete all outstanding high tunnel assembly including slight modifications based on farmer and stakeholder input; both high tunnels are fully functional and ready for research trial implementation and continuation of educational outreach during the remainder of, and beyond the life of the funded grant project.	Obj 1 Outcome 4.2a

-	15	2024: January-April 2024 Kristine Lang worked with graduate and undergraduate students to begin tracking soil temperature and moisture; air temperature and humidity, and light changes within the first high tunnel. In fall 2024 the team expanded this work to include both high tunnels with many more sensors and the addition of soil sampling. This work was driven by farmer and extension educator advisement to connect the effects of external climate factors on the internal high tunnel environment while understanding these impacts on soil health and crop production for South Dakota high tunnel farmers. This work delivers upon preliminary research promised in the current grant and will be used for future grant applications, research, and educational outcomes beyond the life of the current grant.	Objs 1 and 2 Outcome 4.2a Obj 4 Outcome 3.1a
-	16	2025: On Friday, April 25, 2025 Erica Fisher with the Sisseton Wapheeton College Tribal Extension Program hosted a 1/2 day workshop and tour on high tunnel construction. Kristine Lang and Chris Goldade (farmer and employee of SD Soil Health Coalition) co-presented on the details of planning for and building a high tunnel. The presentation resulted in extensive discussion with the audience members. There were 30 total attendees with 16 of those attendees coming from the tribe. Erica was one of the SDSU high tunnel construction trainees, and she is now assisting members of her tribal community with the construction of 7 additional high tunnels.	Obj 2 Outcome 4.2a Obj 4 Outcome 3.1a
-	17	2025: On Friday, June 20 Chris Goldade of Flat Rock Farms and the SD Soil Health Coalition, hosted a hands-on workshop at his farm near Westport, SD. The event focused on pulling plastic on a newly constructed high tunnel and was a collaboration among Chris, the SD Soil Health Coalition, SDSU Extension, and Darin Waldner, a former trainer for the SDSU high tunnel build workshops. Chris was also a former attendee of the SDSU training. A dozen attendees gained first-hand experience with pulling plastic at this event.	Obj 2 Outcome 4.2a Obj 4 Outcome 3.1a
-	18	2025: On Tuesday July 29 the 5th anniversary of the SDSU Extension Specialty Crop Field Day was held with 71 people attending the event. The field tours continue to use the high tunnels that were constructed as part of this project. Post-event evaluation of the July 29, 2025 Specialty Crop Field Day resulted in: 90% of field day attendees reported learning 1 or more new things as a result of engaging in the tour, and 70% reported an intention to make a change on their farm or in their business as a result of what they learned with 100% reporting an intention to share what they learned within another employee or contact who was not at the event. 70% of the field day attendees had attended the event in a prior year and 60% reported that they actually used what they learned to make a change on their farm or in their business indicating that this annual educational event, supported in large part by multiple iterations of USDA SCBGP funding, is making a difference in producer and service provider behavior within our state. Attendees at the event commented that they enjoyed learning about high tunnel growing practices and the opportunity to learn from and network with other attendees.	Obj 2 Outcome 4.2a Obj 4 Outcome 3.1a
-	19	2025: Based on direct conversations with trainees who engaged with this project, 2 additional high tunnels have been built in SD by attendees. One retrofit of a high tunnel is planned, and 7 additional high tunnels are expected to be built within tribal communities.	Obj 2 Outcome 4.2a Obj 4 Outcome 3.1a
-	20	2025: The much anticipated high tunnel video series is complete after a slew of challenges with the contractor. The final series is 8 videos that take viewers through the process of planning for a high tunnel, the detailed steps of construction, and reflections on why high tunnels are important for the SD economy. SDSU Extension has the final videos from the new contractor and is ensuring compliance with all newly updated SDSU accessibility standards. The videos will go live in January 2026 on the SDSU Extension YouTube Channel with full funding acknowledgments to this project and a USDA NCR SARE grant as the expanded series required additional funds to complete all work. This series will also have an SDSU Extension website and be complemented by all future high tunnel articles and fact sheets.	Obj 4 Outcome 3.1a

CHALLENGES AND DEVELOPMENTS (REQUIRED)

Provide any challenges to the completion of your project or any positive developments outside of the project's original intent that you experienced during this reporting period. Also, provide the corrective actions you took to address these issues. If you did not attain an approved objective, outcome(s), and/or indicator(s), provide an explanation in the Corrective Actions column. For developments, you may put "N/A" under Corrective Actions. Additional challenges/developments may be added as needed.

+	#	Challenge or Development (1,200 char.)	Corrective Action
-	1	2022: After the grant was successfully awarded, the project team learned that additional approvals would be necessary prior to the assembly of two high tunnels on the SDSU Brookings campus.	Tanner Aiken routed the project description for approval, and the SD BOR gave their approval in October 2022; final approval was sought from the SD legislature in April 2023.
-	2	2022: The additional approval process pushed back purchasing of materials and the overall project timeline by one calendar year. The original grant was written with timelines that began in summer/fall 2022, and going forward, all work was planned with a summer/fall 2023 start date and all project work reflecting new yearly deadlines.	The grant completion deadline of June 2025 still allowed for all project work to be completed as the majority of the project work (high tunnel assembly and outreach activities) was to occur summer 2023 - fall 2024.
-	3	2022: Kristine Lang engaged partner organizations and producer stakeholders in this project by gathering feedback on what currently does or does not work for high tunnels. Extension colleagues shared unique high tunnel assembly ideas during a June 2022 high tunnel tour on the Pine Ridge reservation.	This development served to strengthen team expertise for this project and has been a positive change.
-	4	2022: A team of SDSU and North Dakota State University faculty received NCR SARE funding for a professional development grant to fund additional high tunnel workshops across SD and ND in addition to a fall 2023 and fall 2024 high tunnel short course.	The documented process from this SCBGP grant was be shared with a multi-state audience through the NCR SARE PDP funded high tunnel short courses amplifying current project impact.
-	5	2022: Ongoing economic factors (material and fuel costs) were expected to increase the price of high tunnel materials and shipping.	Departmental funding supplemented costs not covered by the grant due to rate increases. The project team met with the Agronomy, Horticulture, and Plant Science Dept. in November 2022 to strategize on purchasing considering increased costs.

-	6	2023: Assembly of the first high tunnel took longer than anticipated due to material shipping delays and the learning curve that accompanies new skills, especially for the SDSU facilities team who had limited high tunnel experience prior to this event. The SDSU facilities team was also pulled onto a high priority project for campus, which delayed project work. Costs of additional materials needed were higher than anticipated and impacted the project budget slightly.	Tanner Aiken worked with SDSU Facilities staff to streamline future assembly processes. Some materials were charged to the grant in error, and this was corrected by working with SD DANR. Savings in project travel helped offset the cost of additional materials needed.
-	7	2023: The high tunnel build workshops were delayed until summer 2024 due to lack of staff to complete the second high tunnel before winter 2023.	This delay allowed for more time to prepare for the workshop and create materials for workshop attendees. Kristine Lang set a tentative date for the workshops as May 2024.
-	8	2024: Per the previous report, there were significant delays in the high tunnel assembly and workshop implementation timeline; in 2024 we were able to finally correct this issue through construction and hosting of four educational workshops. While delays were frustrating and led to some material cost increases, it gave the SDSU internal team more time to plan assembly of the first high tunnel and deal with a very steep learning curve (which took more time and labor dollars than originally anticipated). The delay in assembling the second high tunnel and hosting the workshops allowed Kristine Lang to strengthen her networks with SD and on-board more SD farmer collaborators to advise the project and serve as educators. This deepened connections also allowed Lang to promote the educational workshops more widely and engage a record-breaking audience for the 4th annual SDSU Extension Specialty Crop Field Day, which expanded overall reach and potential to exceed expected outcomes.	Due to team collaboration and adjustments in timeline the delays were corrected which allowed 80% of the entire project to be completed as of the year 3 report submission.
-	9	2024: In May 2024, Kristine Lang and SDSU Extension Educational Technology worked closely with an external video contractor to capture audio and video of the start to finish high tunnel assembly process. Additionally, the contractor captured 10+ interviews with attendees. As of the third annual report, we had not received any video drafts, audio, or video footage; NONE of the \$9,000 payment had been issued to the contractor.	SDSU Extension Technology and the SDSU Finance and Contracts office used multiple channels to try to leverage a response from the video contractor. The May footage and interviews was impossible to recreate in full, but the SDSU team planned to work to find an alternative route with a new contractor and multiple high tunnels (including SDSU) to be implemented, if need be.

-	10	2025: The original video contractor did not turn over any audio or video footage from the May 2024 filming.	Over the summer, Kristine Lang worked with the SDSU Educational Technology team and SD DANR to do one final no-cost extension for the project from June 30 to September 29, 2025. A NEW video contractor was identified and NEW filming dates were identified for August 2025 bringing in the original team of trainers including Tanner Aiken from SDSU and the 3 farmer trainers (Darin, Dirk, and Shannon). Amid filming, Kristine Lang went on maternity leave earlier than anticipated and the SDSU Ed Tech team and video contractors had to work on much of the editing without Kristine present. This truly was the most dramatic part of the project, but the result was well worth the challenges as the final product was a multi-part series (over double what was originally promised in the grant) that includes conversational tips and tricks, reflections on lessons learned, and very practical information for viewers of the series to utilize.
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UPCOMING ACTIVITIES (REQUIRED FOR ANNUAL REPORTS)

Provide a description of the activities that you are planning to complete during the next reporting period. Additional activities can be added as needed. Please note, if this is a final report there should be no upcoming activities associated with the project, and this section should be left blank.

+	#	Activity (600 char.)	Anticipated Completion
-			

LESSON LEARNED (REQUIRED FOR FINAL REPORTS)

The recipient or subrecipient is required to provide recommendations or advice that others may use to improve their performance in implementing similar projects. If this is an annual report, please skip this section. (1200 char.)

The biggest lessons learned were as follows:

1. Developing relationships with regional experts and local farmers is critical; this project would not have been possible without the support and education of Iowa State, Kansas State, and NDSU experts. But more importantly, the trainings and videos would not have happened without the three SD farmers (Dirk, Darin, and Shannon) who provided countless hours and invaluable expertise.
2. Have redundancy for video contractors and filming; this was a severe pinch point for project education and hours of footage were lost when the first contractor no longer responded to any communications with SDSU. Fortunately the team was able to re-film and re-create the video series, but the loss of all May 2024 footage was a significant impact.
3. There is a STEEP learning curve for building high tunnels and teaching others to do so; we underbudgeted the time needed to learn how to build high tunnels ourselves, but the process of learning allowed us to teach others in a greater capacity.

CONTINUATION AND DISSEMINATION OF RESULTS (REQUIRED FOR FINAL REPORTS)

Describe your plans for continuing the project (sustainability; capacity building) and/or disseminating the project results. If

this is an annual report, please skip this section. (1200 char.)

The SDSU Extension website and YouTube channels will both be used to house all videos and articles related to high tunnel education that are a direct outcome of the current work. The two high tunnels located on the SDSU campus will be used for years to come for research projects to improve high tunnel production practices including a newly funded USDA SCBGP. The high tunnels will continue to be used for tours to agricultural service providers, SDSU students, Master Garden Volunteers, specialty crop producers, and youth. Trainees from the May 2024 events have actively engaged in their own communities to construct high tunnels, provide consultation to others, and lead public trainings amplifying education.

PROJECT BENEFICIARIES (REQUIRED FOR FINAL REPORTS)

Provide the number of project beneficiaries. If this is an annual report, please skip this section. (12 char.)

550

FEDERAL PROJECT EXPENDITURE

EXPENDITURE (REQUIRED)

You must respond to at least one cost category. Please note, the subtotal and total rows include formulas to auto-calculate totals. The approved budget should come from the accepted project plan or any approved budget amendments.

Cost Category	Amount Approved in Budget	Actual Federal Expenditures (Federal Funds Only)
Personnel	\$0.00	\$0.00
Fringe Benefits	\$0.00	\$0.00
Travel	\$456.00	\$455.89
Equipment	\$0.00	\$0.00
Supplies	\$63,702.00	\$63,701.87
Contractual	\$65,353.00	\$65,353.27
Other	\$887.00	\$887.10
Direct Costs Sub-Total	\$130,398.00	\$130,398.13
Indirect Costs	\$10,432.00	\$10,431.87
Project Expenditure Total Federal Costs	\$140,830.00	\$140,830.00

DISCUSSION OF EXPENDITURES (REQUIRED)

For 1st Annual Reports, if total project expenditures is less than 30 percent, and for 2nd Annual Reports, if total project expenditures is less than 60 percent, include a statement explaining how the grant funds will be expended and project activities completed as planned by the end date on the grant agreement. Any state approved budget amendments should be included here; Include the line item that the funds are coming from and going to and when the state approved the budget amendment. (1,200 char.)

Final budget figures reflect the amendment approved by USDA in July 2025. Variances between actual expenditures and approved budget amounts reflect internal recategorizations by DANR due to differences in SDSU and USDA cost classification systems.

PROGRAM INCOME (IF APPLICABLE)

If program income was earned on the project, grant recipients are required to report on the source, amount, and how funds were expended. Program income is gross income --earned by a recipient or subrecipient under a grant --directly generated by the grant-supported activity or earned only because of the grant agreement during the grant period of performance. Program income includes, but is not limited to, income from fees for services performed; the sale of commodities or items fabricated under an award (this includes items sold at cost if the cost of producing the item was funded in whole or partially with grant funds); registration fees for conferences, etc.

+	Source/Nature of Program Income (100 char.)	Amount Approved in Budget	Actual Amount Earned
-	NA	\$0.00	\$0.00

USE OF PROGRAM INCOME (IF APPLICABLE)

Describe how the earned program income was used to further the objectives of this project during the performance period. Any income generated must be reinvested back into the project and not set aside or reserved for future expenses after the grant ends. (1,200 char.)

NA

PPR ATTACHMENTS DESCRIPTION (IF APPLICABLE)

Grantors will rely on the data that is submitted in this form when they report to congress. However, if you think additional documents are necessary to support PPR, please attach then and provide a document name and description of document below.

+	Document Name	Document Description
-		

