



# Resilience in New Mexico Agriculture

## Abiquiu Regional Meeting

### Summary

#### Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Abiquiu was convened on February 10, 2016. A diverse group of 39 people from six different counties attended the meeting, including farmers, ranchers, educators, researchers, financial lenders, grantmakers, government professionals and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

#### Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

##### Positive

- **Technology & Methods**—There is better understanding of water conservation and use, as well as improved technology for water conservation and production (e.g., water desalinization). More farmers are adopting new water irrigation technology. In addition, there are more options available at a lower cost.
- **Markets**—Consumers are becoming more health conscious as they see the connection between food and diseases like diabetes. There is more interest in buying local foods. More progressive policies like the SNAP Double-up Food Bucks have helped expand the market for healthy fruits and vegetables from local farms at farmers' markets. Farmers also have more marketing access to schools. More food hubs are also being established. Lastly, there is increased use of plants for medicine and overall health.
- **Land**—In this region there is a strong culture of farming, and this is receiving more cultural awareness and acceptance. There is more recognition of historical land use and the need for preservation and remediation.
- **Industry Support**—There is more communication and collaboration among government agencies, producers and young people (e.g., more access to resources and education).
- **Economics**—The price of some commodities have improved (e.g., cattle).
- **Youth Interest**—There seems to be more interest by youth in agriculture. Some see the industry as part of STEM education (especially the science aspect). Some are interested in more natural, organic, small-scale production.
- **Local Producers**—More extended families, women and retirees are getting involved with agriculture production, some for the first time. There is also more collaboration regarding practices and products to make their operations viable.

## Negative

- *Water*—There is concern regarding the certainty of a consistent water supply without contamination. The recurring droughts, major forest fires and slow-moving adjudications create uncertainty and inhibits investments. Water scarcity causes changes in crops and contributes to more fallow land.
- *Bureaucracy & Regulations*—Due to the multiple-use restrictions of the U.S. Forest Service and Bureau of Land Management, there are fewer permits for sheep and cattle grazing available. Increased recreation land use is crowding out agricultural land use. Producers also experience difficulty in engaging in programs like Farm to Table or Farm to School due to the regulations. Federal policies like the Endangered Species Act and the Food Safety Modernization Act make production more expensive. The number of requests for water efficiency projects seem to be overwhelming USDA Natural Resource Conservation Service staff and funding resources.
- *Producers & Succession*—The agriculture workforce is aging. Producer retirement and a lack of interest from youth will result in a decrease in family-owned and mid-sized farms and in a loss of traditional and culture knowledge and practices. The economies of scale needed to generate a viable economic return make it difficult to expand an operation or startup a new operation. Land and capital costs are high and resources for support are limited.
- *Land*—Land is being diverted from agriculture use through federal policies and urban expansion. The agriculture culture and traditions of Native Americans and Hispanics are being lost. Some agriculture land has been divided among family descendants in plots too small for viable operations. Some water rights have been lost. Land, even without dwellings, is being priced at high prices, and finding land for leasing is also expensive.
- *Economics*—Production costs are high and the returns are low for many producers. There is increased competition for limited funding.
- *Markets*—Markets for local foods are still limited, especially in schools, hospitals and other institutions.
- *Workforce*—Finding reliable labor to cultivate and harvest high value crops is becoming more difficult. Many members of the workforce no long see agriculture as a viable career and leave the industry for higher paying jobs elsewhere.
- *Climate Change*—The weather pattern in the region has changed, resulting in a shorter growing season.
- *Food Waste*—Some products (e.g., apples) are not marketable due to the USDA grading system and the Good Agriculture Practice certification requirements. This leads to unnecessary food waste.
- *Public Perception*—Some members of the general public have a negative view of agriculture due to genetically modified produce and the use of steroids and antibiotics in livestock.
- *Group Friction*—There is an impression that environmental groups are working against traditional farmers. In addition, there seems to be unequal influence among the different sectors of the industry.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to the natural resources vital to agriculture (i.e., water, land and native seed sovereignty)
2. Access to economic resources for small-scale producers
3. Legislative policies that are supportive of agriculture
4. Regulatory oversight that is not unduly burdensome and costly
5. Reducing barriers to market entry
6. Adapting to a changing climate and its impacts (e.g., drought, wild fires, water scarcity)
7. Education for youth, producers and the public regarding the importance of agriculture and the need to keep the industry viable for all
8. Developing healthy local food systems
9. Engaging the next generation in agriculture careers with access to capital, land and knowledge

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Natural Resources

1. Complete adjudications and ensure a higher allocation of water is available for agricultural use via legislation.
2. Ensure water rights are attached to land.
3. Encourage the adoption of better irrigation systems.
4. Encourage the use of systems that recycle water.
5. Protect watersheds.
6. Develop better policies to protect water quality.
7. Improve groundwater quality via technology.
8. Improve soil health to maximize water retention.
9. Improve environmental testing.
10. Require the efficient use of water in both urban and rural areas.

### Small-scale Production Support

11. Improve marketing of New Mexico specific or heritage products.
12. Provide education and startup funding for new agribusinesses.
13. Provide education for beginning farmers.
14. Provide education regarding the most viable crops for production and distribution (i.e., match demand with supply).
15. Provide a tax credit for investing in a farmer.

### Legislative & Regulatory Support

16. Require the federal government to mitigate the impacts of unfunded mandates.
17. Connect agriculture stakeholders with policymakers to discuss the negative impacts of legislation and regulations and address unintended consequences.
18. Make the state water plan the launching point for addressing state and federal policies that impact producers.
19. Bring agriculture stakeholders together at the local level.
20. Encourage compromise among grassroots' and special interest organizations.
21. Ensure broader access to information to increase awareness of resources (e.g., low interest loans).
22. Revise policies and regulations to help small producers compete.
23. Provide technical assistance to small farmers (e.g., labeling, marketing).

### Producers & Succession

24. Publicize funding and subsidy sources.
25. Increase gap loans and grants.
26. Match mentors who can transfer their knowledge to young farmers.
27. Develop a clearing house for uncultivated lands and connect farmers to landowners.
28. Compensate agriculturalists to keep the "commons" and act as stewards of natural resources.
29. Expand opportunities for all producers, regardless of scale.

### Climate Change

30. Provide funding to help farmers deal with the effects of climate change.
31. Bring market innovations to scale to help mitigate extreme losses from weather (e.g., Community Supported Agriculture).
32. Educate community members on how they can help.
33. Encourage everyone to anticipate and plan for change.

### Education & Youth Engagement

34. Review what is working in other states.
35. Increase public funding for agriculture programs in public schools.
36. Make an agriculture class mandatory in public schools.
37. Incorporate life labs and gardens, taught by those involved in agriculture, in elementary schools.
38. Increase vocational agriculture programs in high schools.
39. Incorporate agriculture into the STEM curriculum.
40. Provide a diverse, updated curriculum applicable to today's youth.
41. Incorporate experiential learning and integrate historical and cultural knowledge.
42. Teach self-sustainability to youth.
43. Provide mentorship programs.
44. Provide beginning farmer and rancher grants.

### Local Food Systems

45. Fund the development of local food systems and home-based industries.
46. Provide mentors and incentive programs.
47. Develop cooperatives and cost shares.
48. Educate state legislators to increase communication and collaboration.
49. Leverage existing programs at the local, state and federal levels.

### Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	2	Bernalillo	1
Education & Research	15	Dona Ana	2
Farming/Ranching	11	Rio Arriba	16
Financial Lending & Grantmaking	4	San Miguel	2
Government Support & Regulation	4	Sandoval	4
Staff (NMF)	3	Santa Fe	8
		Unknown	6



# Resilience in New Mexico Agriculture Albuquerque Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Albuquerque was convened on January 13, 2016. A diverse group of 60 people from eight different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts, advocates, health professionals, landscapers and media.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- **Industry Support**—There is more interest by policymakers and professionals in the government, nonprofit, education and health sectors in working with members of the agriculture industry. Better communication and collaboration among consumers, communities and the industry is also on the rise. A broad range of advocates work to increase access to funding, training, distribution, aggregation and market opportunities and help the state's agriculture economy grow.
- **Technology & Methods**—Many farmers are using improved methods that conserve water, enhance soil health and require less labor. New technology is available to address changes in climate and improve water mapping, monitoring and management. Evolving research in soil biology, soil carbon sequestration and dryland farming are changing some land management practices.
- **Markets**—There is increased awareness, participation and support from consumers regarding the value of local, fresh produce and the connection to people's health. Government programs such as the ability to use SNAP Double Up Food Bucks benefits in farmer's markets and recurring funds appropriated to schools to buy local food expand markets for local producers. Retail grocery stores are beginning to adapt to this trend for local grown produce. In addition, new markets for grass-fed produce, specialty brewers and local wine are more in demand.
- **Conservation**—There is an increase in seed saving and seed exchanges which enhances diversity.
- **Economics**—Some agriculture products are in greater demand and have been able to secure premium pricing.
- **Youth Interest**—There are more efforts to interest youth in agriculture careers. More grant funding for school gardens and mentorship programs have increased youth participation and excitement for the industry. There are increased efforts to provide more information on available resources to new producers.
- **Urban Gardening**—There is an increase in urban gardens, at least for self-sufficient use, as evidenced by community gardens, senior center gardens, school hoop gardens, home gardens and roof top gardens.

## Negative

- *Water*— Access to clean and abundant water will continue to be an important issue to both urban and rural dwellers. There is continued friction regarding the allocation of water among municipalities, industries, and the environment. Industry practices (e.g., water-intensive crops, disproportionate water consumption between livestock and plants) and municipal practices (e.g., lack of water reclamation, transfer of water rights) add to this friction.
- *Regulations*—The historical division between individual rights and government control continues. Laws and regulations regarding inconsistent application of property taxes, estate taxes, costs of insurance for workers and food safety laws add to this conflict.
- *Producers & Succession*—As the current generation of producers retire, the next generation of producers will find it more difficult to remain in or return to the industry. Although youth and returning veterans are interested in the industry, the high start-up cost of land, equipment and infrastructure is a deterrent.
- *Land*—There is a decline in land available for agriculture due to both urban development as well as declining soil health and topsoil loss.
- *Economics*—Local fresh, healthy food is more expensive and the average consumer can be priced out of the market for this produce. However, lower prices can hurt local growers. Exports of products (i.e., beef, fruits, vegetables) can also undercut the prices local producers.
- *Markets*—Although growing, continued access to local markets (e.g., schools, hospitals, institutions, grocers, restaurants) is still limited.
- *Public Perception*—Consumers and policymakers are not fully aware of the importance of the agriculture industry and have misconceptions regarding industry practices.
- *Food Waste*—Too much food continues to be wasted. Organizations that participate in the holistic life-cycle approach to food production and recovery, experience difficulties due to funding needs for labor, trucks and outreach, as well as liability regulations.
- *Group Friction*—There continues to be friction among stakeholder groups connected to (i.e., agriculturists, environmentalists, and consumers) and within (i.e., large, medium and small operators) the agriculture industry. Tension points include protected species, predator reintroductions, use of antibiotics and pesticides, genetically modified seeds and foods, and competition for resources and return on investments).
- *Resources*—Resources that have an impact on the health of the agriculture industry continue to be limited (i.e., cutbacks in vocational agriculture and youth programs in schools, rising college tuition costs, lack of short-term and flexible-schedule classes for continuing education for farmers and ranchers, less government investment in some areas, decreased incentives for farming and ranching).
- *Technology and Methods*—Lack of education on new methods and decreasing diversity of seed and crops inhibits the health of the agriculture industry.
- *Climate Change*—Concerns about a changing climate continue to add pressure to the agriculture industry.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Accurate consumer, policymaker and regulator information and education regarding benefits of local foods, healthy soil practices, and water use and conservation, as well as education for producers regarding consumer demand and start-up operations
2. Barriers to entry making attraction of new producers to the industry more difficult
3. Continued and fair access to water
4. Regulatory climate that is not aligned or supportive of resilient strategies
5. Lack of political will to create a culture of change for policy changes
6. Long-term, collaborative, multi-sector leadership to build out and maintain programs and relevant policies
7. Soil health and topsoil loss
8. Status of the supply chain infrastructure
9. Reducing food and manure waste

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Consumer & Policymaker Education

1. Increase funding for NMSU-Cooperative Extension Service agents to educate youth and adults.
2. Increase media support (i.e., weekly column or agriculture section) for the agriculture industry focusing on positive stories, connections between hunger and health policies, and issues regarding to water and land use.
3. Use social media as an education tool.
4. Sponsor community activities at farmer's markets to provide information on resources.
5. Local food producers in collaboration with farmer's markets could deliver a produce item to each legislative office with a message of importance regarding agriculture policy.
6. Hospitals could give a basket of fresh food with healthy menus, as well as health and resource information to patients who are being discharged.
7. Expand health councils and community health workers.
8. Teach the connection between food and the source of food in the classroom and give fresh food with healthy menus to take home.
9. Provide more funding for school gardens, cooking classes, etc.
10. Provide mentors and internships to new farmers and ranchers.
11. Create an app for technical agriculture information.

### Producers & Succession

12. Make agriculture part of the K-12 curriculum.
13. Incorporate agriculture and food/nutrition as part of the STEM curriculum in schools.
14. Increase investment in local programs such as FFA, 4-H and Farm to School.
15. Pay farmers and ranchers to be involved in education and outreach (e.g. supervise school garden).
16. Give school credit for practical experience on a farm.
17. Provide financial support for school field trips to local farms.
18. Use animals and honey bees to encourage youth interest in agriculture.
19. Provide mentors (youth will relate to a person more than an organization).
20. Connect farmers to markets beyond farmer's markets (e.g., schools, retirement homes, etc.).
21. Build a local food entrepreneur incubator for starting up local food businesses.
22. Develop accelerator models to create new start-ups to address community needs and issues.
23. Use best practice models.

### Water & Soil

24. Mandate tracking of water use not just withdrawals.
25. Clarify the legal parameters of "use it or lose it"
26. Improve the information available on water leasing.
27. Define the environment as a beneficial use of water.
28. Conduct a study on water rights and alternatives to prior appropriation practices from other states.
29. Address the adjudication process.
30. Conduct additional groundwater mapping.
31. Change water storage practices (e.g., develop shallow and deep aquifer ground water storage, both within the agriculture and water reservoir systems)
32. Transition from reliance on snowpack and increase water production through monsoonal rains, while managing floods.
33. Reconnect the water flows in rivers and arroyos to flood plains.
34. Support watershed-scale restoration and management.
35. Better manage rangelands.
36. Conduct satellite monitoring of rangeland coverage.

37. Improve water conservation and inhibit evaporation within the agriculture system by providing incentives to use resilient practices to improve soil health (i.e., cover crops, rotate crops, no-till farming, green manure, development of organic matter, etc.)
38. Conduct a study of heirloom crops and crop biodiversity in order to respond to local climate conditions.
39. Provide incentives for drought tolerant crops and disincentives for high-water use crops.
40. Increase value-added production.
41. Provide compensation for organic farming and carbon sequestration which conserves water and improves the environment.
42. Shift incentives from fossil fuels.
43. Provide education regarding meat consumption.
44. Agree on and apply the best science available.

#### Regulatory & Business Climate

45. Organize at the local city and county level to focus on zoning regulations that protect food production.
46. Provide more advocacy training to agriculture stakeholders.
47. Encourage more participation in NM Food and Agriculture Policy and Health Policy Councils.
48. Decrease zoning impediments to urban farming.

#### Political Will

49. Engage and educate voters, communities and political leaders.
50. Elect agriculture-friendly leaders.
51. Provide data and information.
52. Extend definition of agricultural value beyond purely monetary value.
53. Support organizations that can influence political will (e.g., bureaus, policy councils, agencies, cooperatives, etc.).
54. Increase local food purchasing by political agencies for meetings, luncheons, etc. and advertise where the food comes from at the meetings.
55. Increase awareness of how agriculture concerns relate to various agencies and departments.

#### Leadership

56. Use NMSU-Cooperative Extension Service to guide state support.
57. Support regional food and agriculture councils and collaborate through periodic state-level meetings.
58. Provide incentives for participation, measurement and validation of success.
59. Fund existing efforts to support training, youth, and industry strategic planning.

#### Supply Chain

60. Establish food cooperatives where producers deliver their products to a single distributor who then delivers the products to various markets in the area for a percentage of the produce price.
61. Establish more community supported agriculture groups, food hubs, and cooperatives.
62. Provide more education about value-added programs (e.g., Global Animal Partnership certification).
63. Follow up with the "Farm to Table/Food and Agriculture Policy Council's Strategic Plan for NM Grown Fresh Fruits & Vegetables for School Meals" initiative.

#### Food & Manure Waste

64. Change the regulations and illustrate the economic opportunity of food recovery.
65. Replicate existing models.
66. Establish cooperation among grocery stores, restaurants, farmer's markets, food banks, shelters, etc.
67. Establish city/county compost facilities.
68. Develop green waste landscapes.
69. Use front-end menu planning to shift to consumer demand while still maintain a focus on health food.
70. Use research, science and market incentives to decrease manure waste.
71. Educate consumers and policymakers regarding the food cycle and prioritize food production for people in relation to animals and waste.



## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	9	Bernalillo	31
Commercial Production & Marketing	1	Catron	1
Education & Research	17	Dona Ana	2
Farming/Ranching	8	Sandoval	9
Financial Lending & Grantmaking	4	Santa Fe	10
Government Support & Regulation	8	Sierra	1
Soil & Water	3	Torrance	3
Health	3	Valencia	3
Landscape Architecture	1		
Media	1		
Staff (NMF)	5		



# Resilience in New Mexico Agriculture Bosque Farms Regional Meeting Summary

## Introduction

The Resilience in New Mexico Agriculture regional meeting in Bosque Farms was convened on April 15, 2016. A diverse group of 15 people from eight different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, soil and water experts and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Technology & Methods*—New innovations in equipment has increased production efficiencies and water conservation practices. Genetic research has led to higher yields. Internet marketing and social media allows producers to expand their market reach.
- *Conservation*—More producers are adopting water conservation practices.
- *Markets*—There will always be a market for the food and clothing products produced by the industry. There is increased interest in local food production and consumption for food safety reasons, as well as an emerging demand for the foods that are unique to our immigrant populations.
- *Industry Support*—Government agencies are trying to improve methods and avenues for current and future producers to obtain necessary financing.
- *Producers and Succession*—There is increased recognition that agricultural professionals are aging-out of the industry and that the industry needs young people to take their place.
- *Collaboration*—Farmers and ranchers are working together more than ever.
- *Education*—More people recognize the need to educate youth and consumers on where their food comes from and the resources that go into producing food. Most people in agriculture today are college educated.

### Negative

- *Water*—There is increasing uncertainty with regard to water due to current and potential drought conditions and declining aquifers. Competition for water between urban and rural use is also increasing. Instead of water being tied to the land, current laws and regulations allow for taking water rights from prime agricultural land which results in land with no agriculture value or use. The lack of water rights adjudications is also a threat to water access.
- *Regulations*—Most producers mentioned regulatory overreach at both the state and local levels. Critical habitat designations and restrictions on grazing permits for livestock limit food production. Various tax laws such as workers' compensation and gross receipts tax on hunting and fishing activities on farm and ranch properties impact producer income. Commercial kitchen regulations prevent initiatives to process food products like roasted chili and bread, especially

by small acreage farmers. Regulations also create financial barriers to beginning farmers and ranchers as well as cause some established producers to leave the industry.

- *Producers and Succession*—Young people are leaving agriculture and moving to urban areas where careers are higher paying.
- *Economics*—There is increasing pricing volatility which makes it difficult for producers to plan ahead. Producers have become price-takers not price-setters. Producers are getting a smaller percentage for their efforts. Competition with imported products has increased. Although consumers want local food, the economic system and the economy of scale issues do not support small producers. Many producers must work off the farm to supplement their income.
- *Public Perception*—There is media bias and public misperception about the industry (e.g., harming the environment through chemicals, manure and soil erosion, as well as producing harmful, genetically modified foods). This has led to an increase in land and water use regulation. Producers are not effectively telling their own story to the public.
- *Technology and Methods*—Some producers are not tapping into new technologies that would be beneficial.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to water
2. Regulatory overreach and interference
3. Accurate information and education for the public regarding the agriculture industry
4. Education and information within the industry
5. Profitability in the current industry environment
6. Succession planning for the next generation of agriculture producers

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water

1. Address water rights issues including adjudication and alternatives to adjudication.
2. Review, and address where necessary, interstate water compacts.
3. Conduct an economic analysis outlining the impact if all water went to urban areas and all food had to be imported from elsewhere.
4. Address forest health issues, other than allowing burning, in order to improve water supplies.
5. Ensure decisions are science-based when determining tradeoffs between water use and endangered species protection.

### Regulations & Business Profitability

6. Establish a unified communications campaign to promote the identification and review of regulatory barriers.
7. Require a cost benefit analysis of regulations.
8. Differentiate regulations for start-up, small and large producers.
9. Streamline regulations for start-up producers.
10. Allow for-profit producers who experience farm/ranch losses to deduct those losses for income tax purposes. Restrict hobby farmers and ranchers from deducting farm/ranch losses from their other, primary income.
11. Promote regulations that incentivize high-quality versus cheap, low-quality food.
12. For meat producers, allow for more versatility in butchering (e.g., mobile butchers, “matanza mobiles”).
13. Require a scientific review of regulations, outside of government, to ensure regulations are based on public health goals versus socially/politically motivated goals.
14. Reduce state regulations.
15. Require the same standards and regulatory compliance for both U.S. and foreign-produced food products.
16. Cut U.S. price supports and prohibit other countries that subsidize agriculture products from importing to the U.S.
17. Require workman’s compensation equity whether producers are U.S. or foreign.

## Education and Communication

18. Demonstrate to young people the breadth of jobs available in agriculture.
19. Promote and expand FFA, 4H and Ag in the Classroom programs, as well as leadership programs for all youth.
20. Include courses in financial literacy in high school curriculum.
21. Implement school-based agriculture leadership and enrichment programs.
22. Implement school mentorship programs in which a student is mentored by a retired farmer or rancher and, with their guidance, takes a crop or livestock herd through its production cycle.
23. Use targeted social media to deliver objective, scientific information about New Mexico agriculture.
24. Communicate to the public the economic impact of the industry's regulatory environment so that consumers understand the costs of producing food and how this effects a producer's return on investment.
25. Communicate that agriculture is the only renewable industry.
26. Build a unified New Mexico Agriculture Coalition to be our own spokespersons for the industry.
27. Educate policymakers (i.e., local, state and national) on the business of agriculture.

## Producers & Succession

28. Provide estate planning education and guidance to agriculture producers.
29. Establish mentoring programs where a beginning farmer can work with a retiring farmer to learn the ropes and share the profits.
30. Provide start-up capital to young farmers and ranchers to acquire land and manage major expenses.
31. Support groups like WESST that invest in young producers and education programs like the Beginning Farmers and Ranchers Program.
32. Establish business incubators for beginning producers.
33. Establish a foundation to support the next generation of farmers and ranchers in which grantees agree to contribute to the foundation once their business is established.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	1	Bernalillo	4
Commercial Production & Marketing	2	Doña Ana	2
Education & Research	4	Lea	1
Farming/Ranching	7	Mora	2
Soil & Water	1	Rio Arriba	1
Staff (NMF)	3	Sandoval	1
		Torrance	1
		Valencia	6



# Resilience in New Mexico Agriculture Crownpoint Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Crownpoint was convened on March 3, 2016. A group of 16 people from six different counties attended the meeting, including farmers, ranchers, educators, researchers, financial lenders, grantmakers and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions, especially in tribal communities. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Markets*—There increased awareness of the connection between food and health issues and more consumer demand for organic, natural produce. This has led to an increase in local farmers' markets and more fresh produce in grocery chains.
- *Food Sovereignty*—The food access movement and increased interest in the benefits of organic, safe, non-GMO food, has led to intentional steps to build community food systems. There has also been a push for international protocols to protect the traditional ecological knowledge of indigenous peoples. There is more recognition that sustainable system design (e.g., heritage seeds, permaculture) is embedded in indigenous traditions.
- *Industry Support*—There is an increase in advocates to promote agriculture (e.g., nonprofits, trade associations, cooperative extension services).
- *Youth Interest*—Children are becoming more interested and involved in agriculture.
- *Local Producers*—There is an increase in small-scale, high-density, local food production (e.g., backyard gardening).
- *Climate Change*—There is a growing public awareness of the impact of changing weather patterns on the industry.

### Negative

- *Water*—Water availability is becoming more uncertain. Increased competition for use and lack of timely adjudication has increased this uncertainty. The "use it or lose it" rule has become a disincentive to conservation.
- *Import/Export Policies*—International trade treaties have taken decision-making regarding trade policy out of the hands of local policymakers.
- *Seed Integrity*—Corporate stakeholders, like Monsanto, threaten the traditional ecological knowledge and sustainable practices of indigenous peoples through their commodification, patenting and selling of genetically modified seeds, as well as claiming and litigating perceived patent violations.
- *Public Perception*—There is a negative perception from some that commercial, agricultural practices are harmful.
- *Education*—Youth are losing valuable life skills due to the elimination of vocational agriculture and home economic programs in the public K-12 education system.

- *Stakeholder Friction*—Producers are missing the opportunity to work collaboratively for the benefit of all scales of operation (i.e., small, medium and large).
- *Leadership*—More leaders who are knowledgeable and supportive of agriculture are needed.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to water and land for people, animals and habitat
2. Access to other resources (e.g., healthy soil), as well as capital resources for land, equipment, seeds and livestock
3. Strengthening the commitment of food sovereignty through education, training and resources needed to build healthy and sustainable food systems
4. Education for youth and adults regarding food safety/traceability, production, marketing and resource management
5. Technical assistance that allow producers to participate effectively in local markets
6. Supportive funding for native community agriculture projects

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water & Other Natural Resources

1. Establish an accurate assessment of available water resources.
2. Establish drought plans.
3. Encourage individual farmer/rancher conservation.
4. Promote more efficient use of water (e.g., drip irrigation).
5. Establish water retention plans and support projects to reduce water run-off.
6. Capture water runoff.
7. Manage water resources at the watershed level.
8. Build producer cooperatives to protect the watershed.
9. Provide soil management education (e.g., benefits of cover crops and no till farming)
10. Support dry land farming.
11. Expand and support research in changing climate patterns and ecological shifts.
12. Make decisions based on independently reviewed, scientific models.
13. Sponsor events to build awareness of resource depletion and demonstrate how to build on available community resources.

### Food Sovereignty

14. Establish supportive policies.
15. Provide education and training.
16. Provide technical assistance.

### Education

17. Provide agriculture information through the schools.
18. Involve students in school garden projects.
19. Build community partnerships and coalitions.
20. Provide workshops for producers.

### Producer Technical Assistance

21. Establish a statewide, producer collaborative with the goal to expand markets for New Mexico branded, organic foods.
22. Create certified, community kitchens that meet food safety standards for marketing local food products.
23. The Navajo nation could create standards that support local producers.
24. Utilize groups that are already in place (e.g., nonprofits, cooperative extension services) to educate producers on industry regulations and requirements.

### Native Community Project Funding

- 25. Build more awareness and provide more funding for cooperative extension programs.
- 26. Expand tribal infrastructure funding.

### Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	2	Bernalillo	2
Education & Research	7	Dona Ana	2
Farming/Ranching	3	McKinley	8
Financial Lending & Grantmaking	1	San Juan	1
Staff (NMF)	3	Sandoval	2
		Santa Fe	1



# Resilience in New Mexico Agriculture Farmington Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Farmington was convened on March 2, 2016. A diverse group of 47 people from six different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Technology & Methods*—There have been advancements in hybrid technology for improving agricultural productivity to meet increasing demand for food grains. Farmers and ranchers also have easier access to information on best practices, through technology. Better land management practices, such as holistic and organic ranching, have also improved the health of soil and rangeland. There has also been an increase in native seed banks to protect seed integrity. Negative trends such as higher healthcare costs and a perceived lower quality of life, seem to be driving the need for agriculture solutions that are more efficient and sustainable.
- *Local & Niche Markets*—Overall, there is increased awareness of where food comes from, a return to native diets of healthy, fresh food, and a push for local food systems. This has increased consumer demand for locally grown foods and expanded local markets such as cooperatives, farmers' markets and farm to school programs. There is also increased demand for organic meat produce which has allowed smaller-scale ranchers to promote New Mexico products in niche markets and reach consumers through internet sales.
- *Conservation*—There is more general awareness of how water is used and the need for conservation.
- *Industry Support*—There seems to be more planning and coordination among the food, health and transportation systems. Increased lobbying to elected officials for the needs of the agriculture industry is also occurring.
- *Economics*—Some produce prices are higher, especially beef, and some production costs are lower, such as fuel and fertilizer.
- *Youth Interest*—There has been renewed interest and more organization support for youth who are interested in staying engaged with agriculture.
- *Food Safety*—It is easier to trace where food comes from.
- *Family Gardening*—More families are gardening and growing food for their own consumption.



## Negative

- *Water*—There are greater demands on limited water. There is a lack of state funding for water planning and management which leaves the agriculture industry vulnerable. There is also a lack of government funding support for better irrigation systems. Water is being contaminated by other industries and through government mismanagement. Water rights are being purchased by municipalities and counties and diverted from agriculture for urban development.
- *Regulations*—Both federal and state regulations are seen as rigid and make agricultural costs higher and investments uncertain (e.g., worker's compensation taxes, taxes on tools, equipment, stock and land, restrictions from the Endangered Species Act, and the uncertainty of grazing rights).
- *Producers & Succession*—Farmers and ranchers are aging, and there is a decline in family farms. Some land parcels which have been divided among family members for generations, are now too small to support a viable farming or ranching operation. Some traditional ways of life are already lost (e.g., sheep herding). Student loan debt, the rising costs of living, and the price of land drive young farmers away from the industry. Startup costs make it more difficult for new producers to compete with established producers. Overall, there are not enough new producers to meet the gap.
- *Land*—The multi-generational break up of family farms has led to land that is no longer viable for production due to the size of the parcel or condition of the soil. Some land has been harmed from chemical fertilizers and pesticides. The encroachment of urban areas has led to the diversion of agriculture land to residential use.
- *Economics*—Access to sustainable opportunities and the availability of affordable financing has added to the instability of a farming and ranching lifestyle.
- *Investment*—There is lack of investment in local infrastructure such as storage, inspection and distribution.
- *Workforce*—There is more limited availability of those who are willing to work in the agriculture industry.
- *Markets*—Local markets are decreasing for mid-sized producers.
- *Stakeholder Friction*—The promotion of individualism and decline of community collaboration threatens agriculture. There is continued friction between environmental and agricultural groups.
- *Public Perception*—There is negative publicity and some misinformation regarding agriculture industry.
- *Education*—There is a decrease in agriculture programs in the public schools.
- *Food Safety*—There is an increase of food contamination and product recalls.
- *Pollination*—Pollinators are declining.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Protecting the quality and supply of essential resources such as water, soil and land
2. Continued communication and education for the general public and current and future agriculturalists
3. Regulatory over-reach and interference
4. Economic viability for small producers
5. Aging population of farmers and ranchers and the transition to the next generation
6. Access to affordable land for agricultural use
7. Local food system demand and support
8. Availability of labor for the agriculture industry

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Natural Resources

1. Educate producers on best practices.
2. Provide access to funding sources.
3. Continue water monitoring.
4. Invest in irrigation infrastructure (i.e., modernization and upgrades).
5. Practice holistic watershed management.
6. Establish an equipment lending system.
7. Utilize labor saving equipment.
8. Build soil health and organic matter to address a warming climate, water scarcity and sustainability.
9. Provide tax incentives for appropriate land stewardship.

### Communication & Education

10. Increase the use of responsible, social media.
11. Establish a clearinghouse for information.
12. Conduct field tours, education events and mobile workshops.

### Regulatory & Business Climate

13. Review and amend legislation and regulations that inhibit agriculture growth (e.g., forest management productive use regulations, state taxes on small farmers for agriculture production inputs).
14. Transfer land management from federal to the state and local level.
15. Increase the number of farmers and ranchers who are elected at the state level.
16. Build more public awareness regarding agricultural practices.
17. Support more research of best practices that show how to support the land, as well as protect rare species (e.g., feed wildlife as well as cattle, engage in rare plant cohabitation, use proper grazing techniques)
18. Index capital gains and estate taxes to inflation.
19. Set up estate trusts.

### Support for Small Producers

20. Establish a “buy NM first” program.
21. Build partnerships with buyers.
22. Provide education on business and contingency planning.
23. Reform the tax code.
24. Abolish inheritance and estate taxes or exempt agriculture from these taxes.
25. Deregulate farm credit.
26. Reform the qualification requirements for loans.
27. Encourage government-subsidized loans that have lower interest rates.
28. Encourage government-insured loans.
29. Provide incentives and subsidies to small producers.

### Producers & Succession

30. Work with higher education institutions and community colleges to increase youth interest in agriculture.
31. Provide grants and affordable loans to new farmers for both startup and operating costs.
32. Require a lower loan down payment with submission of a good business plan.
33. Support farm camps and youth clubs like “catch a heifer club” or “garden, cook and eat”
34. Incorporate agriculture issues into the social studies school curriculum (e.g., geography, government, history and economics).
35. Establish a youth-to-youth mentorship program.
36. Develop internet agriculture apps to attract youth interest.

### Land Affordability

37. Develop vision, goals, objectives and reward system on the importance of agriculture to society and follow through with the plan.
38. Establish a long-range plan for agriculture versus residential land use.
39. Restrict selling agriculture land for residential use.
40. Re-evaluate water allocation and distribution.
41. Increase efforts to communicate available land-lease and rent-toward-purchase strategies.
42. Partner with the public sector to conserve land affordability (e.g., create conservation easements or incentives for keeping water on land).
43. Provide education on land and water use.
44. Follow through on conservation efforts.
45. Continue and extend efforts to eliminate invasive plants that deplete water supply.

### Local Farming & Food Systems

46. Study local food systems to identify gaps and needs.
47. Establish food hub centers and distribution locations.
48. Increase support for local markets.
49. Encourage agriculture tourism.
50. Support supplemental programs for healthy local foods.
51. Educate the labor force of young farmers.
52. Educate consumers on the value of local foods.

### Workforce

53. Connect with faith-based and student organizations for volunteers.
54. Use the foodbank model (i.e., families help with the harvest in exchange for fresh food).

### Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	4	Bernalillo	4
Commercial Production & Marketing	2	Dona Ana	1
Education & Research	3	McKinley	1
Farming/Ranching	23	San Juan	36
Financial Lending & Grantmaking	1	Sandoval	2
Government Support & Regulation	9	Santa Fe	3
Soil & Water	2		
Staff (NMF)	3		



# Resilience in New Mexico Agriculture Laguna Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Laguna was convened on January 14, 2016. A diverse group of 44 people from eight different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts, advocates and media.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions, especially in tribal communities. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- **Technology & Methods**—Many farmers and ranchers are using improved methods that conserve water and enhance soil health. Water conservation improvements include better drip irrigation, water harvesting methods and self-filtration systems for water collection. The survey required by the NM Pueblo Irrigation Infrastructure Act is almost completed and the information will help tribal leaders prioritize infrastructure repairs. New research and technology is available for increasing soil quality including better range management to prevent overgrazing, more awareness of natural methods for soil care and more focus on field preparation to increase the amount of land suitable for agriculture use.
- **Markets**—There is more demand for local foods and better access to local markets that can improve the physical and economic health of tribal communities. SNAP and WIC benefits help more families afford fresh produce from local markets. The National School Lunch Program includes native, cultural foods in schools. Better transportation support programs are also making a difference.
- **Food Sovereignty**—There is more effort to retain cultural values by merging old and new practices for producing food. Communities are returning to producing native and organic crops as well as protecting seed integrity through saving and using traditional seeds. Tribal leadership is supporting local, healthy food access which leads to better support for small- and medium-scale farmers. There is also increased support from national programs like AmeriCorps to establish community gardens. Tribal elders are more involved in building hoop gardens for schools and working with youth. Tribal healthcare professionals and programs like Fresh Rx educate community members about the connection between local food and health.
- **Industry Support**—There is more assistance and community-based cooperation from state and federal organizations for training, funding, and support programs (e.g., livestock management training, support with cattle forage and water distribution needs, procurement requirements). Tribes can receive preference for some government programs.
- **Economics**—Some agriculture products, such as beef, are earning better prices for producers.

- *Youth Interest*—Young people are more interested in staying in or returning to the agriculture as a career. The Intertribal Agriculture Council is seeing larger turnouts for national gatherings. The next generation is returning to native traditions of land stewardship and food production. Grant funding for school gardens and mentorship programs have increased youth participation and excitement for the industry.

### Negative

- *Water*—Catastrophic forest fires and flooding have created long-term challenges for tribal land and water quality. Water pollution from large-scale operations and oil and gas production have also had an impact on water quality. A deteriorating irrigation distribution system, accumulated silt and dam seepage has reduced the efficiency and amount of water delivered for food production. Water rights settlements and lack of adequate water and drought management planning also impact water available of agriculture use.
- *Bureaucracy*—Lack of clarity between the Bureau of Indian Affairs and tribal authority, as well as complicated federal applications and requirements inhibits some producers from making improvements or expanding. Many organizations are working on similar problems, but are not necessarily working together. There is increasing competition for grant funding.
- *Producers & Succession*—As aging producers leave the industry, the next generation is finding it more difficult to stay involved in agriculture. Access to enough land for a viable operation, capital costs for equipment and low returns have lead many young people to leave the industry for other jobs such as mining. Those who have left and want to return need to rebuild their knowledge and skills.
- *Land*—Uncertain grazing rights, overgrazing, chemical fertilizer pollution, and mining and other industry pollution, as well as lack of support for environmental clean-up from the U.S. Environmental Protection Agency decreases available rangeland. Uncertainty over the ownership of unused family fields keeps potential farmers from planting crops. Agriculture land has also been reassigned for residential use.
- *Economics*—Agricultural funding and subsidies have been reduced for tribal communities, especially for small producers. Loans for livestock, machinery and infrastructure are difficult to obtain given that trust land cannot be used as collateral.
- *Markets*—Packaging and marketing local food products is barrier for small-scale farmers. Selling local food to schools is difficult, and few casinos are buying local produce. Many products, especially milk, go bad before they are sold.
- *Workforce*—Fewer workers are available for any size of farming or ranching operation.
- *Import/Export Policies*—Tribes are also competing with international producers, especially from Mexico who can undercut prices for chilies, beef and other meats from U.S. producers.
- *Climate Change*—Extreme weather, increasing drought and stronger winds seem to be on the rise.
- *Seed Integrity*—Tribes are losing their sources of legacy seeds and the knowledge and practices for preserving and growing these seeds. There is increasing production and use of genetically modified seeds.

### Challenges

These trends lead to a number of challenges which were prioritized by the participants. Crosscutting each of these challenges is the need to educate all community members, including all producers.

1. Continued legal access to high-quality water
2. Removal of planning, logistical and financial barriers
3. Attracting and keeping the interest of youth in the agriculture industry
4. Ensuring more land is available and viable for agriculture production
5. Protecting the environment and keeping it clean
6. Facilitating farm-to-market opportunities
7. Ensuring indigenous seed sovereignty
8. Producing healthy food
9. Supporting small-scale production

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water

1. Build both the elected and non-elected leadership needed to ensure effective water policy.
2. Protect priority water rights and address inequities in legal issues.
3. Renegotiate the inter-state water compacts, especially regarding the impact of evaporation on water delivery, or petition the supreme court to overrule the compacts.
4. Use the water from under-utilization reserves (e.g., San Jose Lake, Acoma Lake).
5. Repair and maintain aging water infrastructure (i.e., dams, ditches).
6. Improve water quality monitoring making it easier for tribes to apply for permits and grants.

### Planning, Financial & Logistical Barriers

7. Ensure the statewide strategic plan is aligned with tribal sovereignty.
8. Improve communication and sharing of ideas among tribes and pueblos.
9. Create a centralized clearing house of information regarding planning, financial and logistical resources.
10. Assign an employee who knows the community and available resources to help members of the agriculture industry match needs to resources.
11. Create a group of experienced farmers and ranchers, not tied to tribal leadership political elections, that can oversee and support programs and resources over the long-term.
12. Include training on how to access planning and financial resources in high school agriculture classes.
13. Fund a program for maintenance and expansion needs.
14. Use tribal resources to ease transportation issues (e.g., buses).

### Producers & Succession

15. Start engaging young children in Head Start and a Farm to Pre-school program in activities that will increase their interest in food and agriculture.
16. Increase school programs that focus on food and agriculture.
17. Establish more 4-H organizations on tribal lands to help youth become more aware of the agriculture industry in general.
18. Use social media to inform youth of the variety of careers in the agriculture industry.
19. Support networking activities for youth (i.e., intertribal agriculture council).
20. Build youth awareness through farm tours.
21. Incorporate farm animals and agriculture activities into other classroom activities (e.g., science, math).
22. Communicate how agriculture is a STEM career (i.e., science and technology-focused).
23. Sponsor more college scholarships for agriculture majors.
24. Forgive student loans for young farmers.
25. Provide mentors and internships for young farmers.

### Land

26. Engage tribal administration, councils and land societies to help communities and families resolve land-use issues in order to get more land into agriculture production.
27. Involve tribes, religious groups and the Bureau of Indian Affairs to develop land-use succession plans for tribal communities.
28. Involve the tribal war councils and chiefs to help communities and families determine the best use for idle lands, taking into consideration how the land has become idle.
29. Encourage tribal administration to formally document land-use agreements among family members.
30. Revive land-use programs that support the traditional values of each community.

### Environment

31. Encourage stewardship as every person's business and life.
32. Communicate ways to reduce our carbon footprint.
33. Use natural ways to clean up the environment (e.g., use gray water systems, engage in sustainable urban development, use sustainable farming practices, follow native traditions that respect the earth).

### Farm to Market & Healthy Food Production

34. Find ways to maintain a level of consistency for the buyer (i.e., pricing consistency leads to market consistency).
35. Provide assistance to farmers and ranchers regarding business plans and resources that are the appropriate scale for their small-to-medium operations.
36. Provide incentives for tribal farmers to participate in markets outside the pueblos (e.g., market healthy foods to schools and other communities).
37. Develop and expand markets for healthy food products.
38. Replicate successful businesses.
39. Develop a website that allows local restaurants to locate and order from local food producers.
40. Assist local growers with transportation.
41. Provide more education on how to sell your products to market locations.
42. Use more social media and website to foster farm-to-market opportunities.
43. Emphasize the health aspects of traditional foods (e.g., blue corn) in marketing promotions.
44. Create and distribute cookbooks with traditional foods and edible rangeland plants.
45. Promote cooking demonstrations with traditional foods and promote their health benefits.
46. Advocate food sovereignty and reclaiming native foods.
47. Establish producer cooperatives and collaboration to meet market demand, storage, inspection and education needs.
48. Support food production among the elderly.
49. Support more women in farming
50. Review and adjust public institutional regulations, vendor requirements and budgets that are not aligned with tribal producers on tribal lands (e.g., Schools require food sellers to have \$2 million in auto insurance, making the assumption that all food sellers use industrial-size trucks.).
51. Address conflicting regulations and certifications and align them by market (i.e., GAP, Organic, USDA inspected/certified).
52. Make certification processes consistent with auditing requirements.
53. Increase the number of certified inspectors and facilities so that products are traceable.

### Seed Sovereignty

54. Encourage collaboration with tribal seed banks.
55. Provide producer education regarding sources of native seeds, how to grow these seeds effectively (e.g., correct soil conditions and altitude), and how to save seeds.
56. Educate the public about the environmental impact of indigenous seeds versus genetically modified seeds.
57. Develop policies regarding the use of natural seeds and genetically-modified seeds (e.g., stronger labeling of seed source).

### Small-scale Production

58. Provide workshops that are specific to the needs of Indian youth and adults.
59. Communicate more broadly regarding available grants available.
60. Target more grants to small producers.
61. Support subsistence farming in addition to market-oriented farming.
62. Encourage NM State University and federal agencies to provide hands-on technical assistance, not webinars, on grant writing and completing grant applications.
63. Simplify loan applications.
64. Simplify language on paperwork required.
65. Expand USDA training and funding support to purchase, upgrade and maintain agriculture equipment.
66. Provide stipends for producers to attend training on equipment
67. Establish cooperative community farms and equipment sharing
68. Involve tribal elders' support and participation in helping small-scale producers.
69. Provide mentors who are unique to each group's culture and traditions.
70. Establish agriculture departments on pueblos.
71. Encourage support from tribal, state, and federal leaders to put native farmers on the forefront of program discussions and funding.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	1	Bernalillo	10
Commercial Production & Marketing	1	Cibola	11
Education & Research	8	Dona Ana	2
Farming/Ranching	16	McKinley	1
Financial Lending & Grantmaking	3	Rio Arriba	2
Government Support & Regulation	9	Sandoval	12
Media	1	Santa Fe	5
Soil & Water	2	Other	1
Staff (NMF)	3		





# Resilience in New Mexico Agriculture

## Las Cruces Regional Meeting

### Summary

#### Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Las Cruces was convened on January 7, 2016. A diverse group of 65 people from nine different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

#### Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

##### Positive

- **Technology & Methods**—Many farmers are producing higher yields per acre due to microbe research which improves soil quality and genetic science which strengthens seed traits. Improved methods of production (e.g., reduction in the use of chemicals and pesticides, improved irrigation systems, self-sufficient solar systems) and the planting of more perennial, higher value crops have led to improved soil fertility and water use.
- **Markets**—New niche markets, including international markets, and specific New Mexico branding have opened up new markets emphasizing specialty products such as pecans, chili, cheese and wine. This has also helped small farmers reach specific consumer groups and get their products into larger retail stores. Increasing consumer demand for fresh, local produce and increased food assistance support have benefited local farmer's markets.
- **Conservation**—Using holistic approaches and good stewardship of water and land, farmers and ranchers can produce more sustainably.
- **Industry Support**—There are stronger collaborative efforts and willingness within the industry to address issues and make changes. In terms of education, research, funding the development of new technologies and markets, and outreach to commodity groups, state and federal agencies and institutions have shown increased support of the agriculture industry. Agriculture advocacy groups that represent local producers and communities are interested in bringing together stakeholders to discuss policies and regulations. There is more public awareness and interest in the connections between water, land, food, health and a sustainable environment. Policymakers are recognizing the need for a diverse agriculture industry and to develop policies that support it.
- **Economics**—There has been an increase in certain commodity prices, especially beef.
- **Youth Interest**—There is increased focus on encouraging and supporting members of the next generation to enter the agriculture industry. Many are savvy, enthusiastic, well-educated and excited about the technology and science associated with the industry.
- **Population**—The population of the world is increasing and will need the products of the agriculture industry.

- *Climate*—New Mexico is blessed with a long growing season, fewer cold spells and less pests and disease than other regions.

### Negative

- *Water*—Access to clean and abundant water will continue to be uncertain for the industry due to climate change, drought, population growth, unresolved water rights, legal issues and planning policies. This becomes a disincentive to make plans and investments.
- *Regulations*—Participants believe that state and federal regulations that are incompatible continue to create uncertainty for producers, processors and marketers. They report one-size-fits-all regulations interfere with innovation, technology transfer and crowd out local solutions resulting in higher production costs and destroyed markets. Participants are concerned that state officials at the executive and legislative levels need to better understand agriculture practices, challenges and needs in order to foster a more balanced, business-friendly environment.
- *Producers & Succession*—As the current generation of producers retire, the next generation of producers will find it more difficult to remain in or return to the industry. The high cost of education and land and the lack of access to capital inhibits entrepreneurship.
- *Land*—Encroachment of agricultural land by urban areas and the sell-off of land to developers leads to higher land prices and higher risks to producers from lawsuits. In addition, soil health is being damaged due to lack of soil management training, compaction, invasive species, pests and practices that increase salinity.
- *Economics*—The rising cost of land, infrastructure, inputs, and transportation and flat or decreasing commodity prices endanger the industry's economic viability. Small farm and ranch operators find it more difficult to compete with larger corporate operations.
- *Public Perception*—Consumers and policymakers are not fully aware of the importance of the agriculture industry and have misconceptions regarding industry practices (e.g., carbon foot print, water use, genetically modified food). Participants believe environmentalists and other advocacy groups often criticize the industry without the science to back up their claims, and agriculturalists often mishandle their response to negative or misinformed comments.
- *Workforce*—Although some services for migrant and seasonal farmworkers have been funded for next five years, support for educating this worker population is a challenge and workers have difficulty accessing services.
- *Import/Export Policies*—Many policies benefit the agriculture industry outside of New Mexico more than inside the state (e.g., NAFTA). The price of imported products undercut local prices, and some imports are being labeled and marketed as New Mexico products. In addition, the transportation infrastructure needed to support trade partners contribute to the decline in agricultural land and create eminent domain conflicts (i.e., railroad extension from Mexico into Dona Ana County).

### Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to water
2. Regulatory over-reach and interference
3. Accurate consumer/policymaker information and education regarding food, health and the agriculture industry
4. Urbanization and other diversions of agricultural land
5. Need for agricultural industry education
6. Local impact of import/export policies and related infrastructure
7. Finance and lending opportunities for purchasing land, equipment and stock, especially for new producers
8. Improved production methods and technology
9. Continued diversity of operations in the industry (i.e., large- and small-scale production) and improved return on investments

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water

1. Increase conservation efforts.
2. Utilize new technologies to increase water availability and access.
3. Support more research and education to increase awareness of water issues and options.
4. Increase urban rainwater harvesting.
5. Increase water retention and recharge through soil health infiltration.
6. Increase understanding of water retention, harvesting and recycling.
7. Transport, via a pipeline, excess water from the eastern part of the country to western reservoirs.
8. Find ways to recharge aquifers by decreasing runoff and returning rainwater and irrigation water back onto aquifers.

### Regulatory & Business Climate

9. Advocate for more local and state-level land management.
10. Meet with the U.S. Bureau of Land Management and U.S. Forest Service to get involved with their planning efforts upfront.
11. Apply a regional focus to share resources through the Western Governors' Association.
12. Build case studies showing the economic impact of certain environmental regulations (e.g., spotted owl protection and fire suppression).
13. Invite our federal delegation to agriculture sites to familiarize them with the industry's issues.
14. Organize members of the agriculture industry to get involved, be proactive and speak up about their issues.
15. Advocate through social media to engage stakeholders in the issues and get them involved in action.
16. Support the leaders of organizations that support the industry (e.g., NM Department of Agriculture, Farm Bureau, NMSU-Cooperative Extension Service) and build links to legislators to impact the business climate.
17. Demonstrate the economic impact for individual producers by providing science and economic data (e.g., tie local food production to healthcare costs).
18. Demonstrate economic growth opportunities for all sectors of the industry.
19. Set up the capacity for industry stakeholders to testify remotely at the state legislature.
20. Expand the Gate to Plate program to involve other commodity groups.

### Consumer & Industry Education

21. Educate consumers about the smart business people who are producing their food.
22. Expand opportunities to educate the public using a cross-sector approach.
23. Enhance the use of mass media to illustrate the industry's stewardship role.
24. Enhance existing formal agriculture education and youth leadership programs.
25. Promote community events and programs such as Ag tourism, Ad days and community/school/backyard gardens.
26. Take individual responsibility to share industry concerns with the public.
27. Create agriculture internships.
28. Brand New Mexico products and contract with national suppliers to sell local products.

### Land

29. Strengthen and pass the Right to Farm legislation.
30. Require developers to provide subdivision reviews disclosing all issues represented by the local Soil and Water Conservation District, USDA-Natural Resources Conservation Service, etc.
31. Involve agriculture stakeholders in local land use planning and zoning committees.
32. Develop policies regarding the appropriate size of land divisions.
33. Strengthen markets for products that will increase land value and offset the development cost discrepancy.

### Import/Export Policies

34. Support NMSU to educate others about global markets, trade policies and economic impact.
35. Build relationships with media (e.g., broadcast, print, and internet) to inform the general public and increase voter knowledge.
36. Develop and implement an education plan for policymakers.
37. Increase communication between policymakers and land owners.

38. Encourage local, state and federal officials to attend meetings like this one.
39. Ensure transparency of decisions and make policymakers accountable when they support a policy that negatively impacts constituents.
40. Develop impact assessments.
41. Increase communication among land owners regarding trade policies.

#### Producers & Succession

42. Provide state and federal tax incentives to encourage lenders to offer interest rate discounts.
43. Improve on-going young producer programs from lenders.
44. Encourage internships at lenders for future producers.
45. Improve communication regarding the different operations offered to future and new producers.
46. Improve education opportunities for future producers.
47. Improve and expand mentorship programs for future producers.

#### Production Improvements for Large and Small-scale Operations

48. Improve the production quality of land by increasing cover crops, moving to low- or no-till practices, etc.
49. Improve effectiveness of current cost share programs.
50. Use innovative farmers and ranchers to educate others.
51. Increase the capacity of NMUS-Cooperative Extension Service and USDA-Natural Resource Conservation Service to organize producer-led demonstrations of conservation practices more often.
52. Provide incentives for producers to engage in soil fertility markets and soil carbon markets.
53. Restructure federal crop insurance.
54. Develop local and regional markets for new products to encourage crop diversity (NOTE: free trade agreements both drive and suppress diversity).

### Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	6	Bernalillo	2
Commercial Production & Marketing	2	De Baca	1
Education & Research	22	Dona Ana	47
Farming/Ranching	12	Grant	1
Financial Lending & Grantmaking	3	Luna	3
Government Support & Regulation	14	Otero	6
Soil & Water	3	Sandoval	2
Staff (NMF)	3	Santa Fe	2
		Socorro	1



# Resilience in New Mexico Agriculture Roswell Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Roswell was convened on December 2, 2015. A diverse group of 48 people from twelve different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, and soil and water experts.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Technology*—Due to better research, chemistry, seed traits, irrigation and precision equipment, technology is helping the industry be cleaner, safer and more efficient.
- *Markets*—Consumers, especially the millennial generation, are becoming more aware of the need for healthier food that is grown locally, opening up potential new markets for producers.
- *Conservation*—As producers become more sensitive to the costs of water, fuel and transportation, they are adopting more efficient and effective practices that lead to better conservation of water and land, as well as better yields.

### Negative

- *Water*—Viable access to water will continue to be uncertain for the industry as precipitation levels decrease, water rights are diverted to non-agricultural use, legal settlements remain unresolved, and more effective water management practices are ignored.
- *Regulations*—Government regulations at all levels regarding taxes, wages, workman's compensation, insurance, food safety and the environment continue to increase costs for industry stakeholders.
- *Succession*—As the current generation of producers retire, the next generation of producers will find it more difficult to remain in or return to the industry due to the economy of scale needed to be a viable business, inheritance taxes, lack of access to capital funding, as well as long and short-term lending constraints. This trend will also increase the diversion of agricultural land and water rights to non-agriculture use as producers retire without having a successor.
- *Land*—Encroachment of agricultural land by urban areas, the sell-off of land and water rights to the oil industry and developers, diversion of land to alternative energy generation, and land degradation due to brush and invasive species leads to higher water and land prices and higher legal risk due to lawsuits.
- *Workforce*—There are decreasing numbers of managers and laborers with an agriculture education and background, creating an inconsistent and less qualified workforce for the industry.

- *Economics*—Rising production and processing costs and flat or decreasing commodity prices endanger the industry’s economic viability. Small farm and ranch operators find it more difficult to compete with larger corporate operations.
- *Public Perception*—The general public and media is not fully aware of the importance of the agriculture industry and have misconceptions regarding industry practices and food safety (e.g., genetically modified foods).
- *Markets*—Lack of access to consistent markets for crops is increasingly problematic for small producers.
- *Alternative Energy*—The expansion of solar arrays and wind turbines is having an impact on the industry due to diversion of land for energy generation, land damage from accidents (e.g., fires, lubrication spills), as well as impact on bird migration and possible impact on weather patterns.
- *Pollination*—Pollinating insects continue to decrease in health and numbers, which threatens agriculture production.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to water
2. Regulatory over-reach and interference
3. Accurate public information regarding food and the agriculture industry
4. Active engagement from stakeholders in policy change for the industry
5. Consistent access to markets which generate a viable return on investment
6. Barriers to entry making succession planning more difficult
7. Public perception of the industry
8. Cost of government policies to small farm and ranch operators

Other challenges mentioned by participants, include:

- Urbanization and other diversions of agricultural land
- Access to qualified technical assistance from government agencies and universities
- Lack of long-term tax incentive programs
- Inadequate transportation infrastructure
- Economies of scale needed for operations
- Lack of rural representation in the state legislature
- Immigration reform
- Adequate and consistent work force
- Apathy within the industry
- Right to farm resistance
- Worker’s compensation costs
- Misconceptions regarding genetically modified foods
- Cost of fuel for transporting produce outside of local areas

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water

1. Ensure water policy becomes the number one issue for political candidates.
2. Mandate that municipalities conserve more water and provide incentives to reclaim and reuse water at least three times.
3. Lobby to secure additional funding to improve water planning, monitoring, conservation and management.
4. Expand the list of beneficial use of water to include “in-stream”.
5. Embrace weather modification through conservation, cloud seeding, shade balls, etc.
6. Maintain current water rights and improve enforcement of forfeiture laws.

### Regulations & Business Climate

7. Change government policies that negatively impact the industry.
8. Build support for the right to farm by improving the perception of the industry through a well-known spokesperson.
9. Improve the business climate for the industry by reducing regulations, improving permitting time, etc.
10. Improve succession planning for the next generation by removing barriers.

### Public Education

11. Provide public education about food and agriculture from early childhood through college.
12. Invest more funding in education.
13. Ensure technology literacy for all generations.
14. Increase industry involvement in education by removing the barriers to the classrooms that agriculture educators encounter.

### Industry Stakeholder Engagement

15. Encourage individuals to get involved in industry issues and have a voice in the decisions at every level, local through federal.
16. Build a unified voice with a broad view for the industry.

### Local Food Policy & Markets

17. Invest more to feed New Mexicans first.
18. Ensure access to local markets so that schools, hospitals and restaurants have access to local produce.

### Public Perception

19. Invest in a well-coordinated public relations campaign, targeting both students and adults, to promote the importance of the industry and correct misconceptions/misinformation about industry practices.
20. Educate policymakers about the industry, its issues and opportunities, through NM Ag True Tours and other strategies.

### Research

21. Invest additional funds for research in agriculture, technology, marketing, etc.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Commercial Production & Marketing	2	Bernalillo	1
Education & Research	9	Chaves	9
Farming/Ranching	20	Curry	1
Financial Lending & Grantmaking	2	De Baca	5
Government Support & Regulation	10	Dona Ana	1
Soil & Water	2	Eddy	9
Staff (NMF)	3	Lea	4
		Lincoln	4
		Otero	1
		Roosevelt	8
		Sandoval	2
		Santa Fe	3



# Resilience in New Mexico Agriculture Shiprock Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Shiprock was convened on March 4, 2016. A group of 25 people from five different counties attended the meeting, including farmers, ranchers, educators, researchers, government professionals, financial lenders, grantmakers, advocates and media.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions, especially in tribal communities. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Technology & Methods*—Many farmers and ranchers have improved their management of water and land resources (e.g., drip irrigation).
- *Markets*—Access to local markets have increased due to farm to school initiatives.
- *Food Sovereignty*—There is increased interest in traditional agricultural practices and a return to traditional foods to address contemporary health problems. People are more conscious of health and the benefits of fresh, organic local food. More community members are getting involved in food production and preservation.
- *Industry Support*—Navajo Nation laws are favorable to producers, as profits are not taxed. In addition, farmers are more open to sharing their farming practices. The cooperative extension service is also supporting farming and ranching.
- *Youth Interest*—Some youth are getting more involved in agriculture. Elders are more involved in showing youth how to garden and eat healthy. Through hands-on field trips, youth can see the cycle of life in action.
- *Local Producers*—A local, sustainable farming movement is gaining momentum.
- *Water*—The Navajo Nation controls water that can be used for agriculture.

### Negative

- *Water*—The San Juan River and other water sources are affected by industrial pollution.
- *Bureaucracy & Regulations*—The number of agencies involved, the gatekeepers, and the complex requirements hold back progress. Both tribal and state regulations and policies interfere with farming and ranching. There is limited communication and cohesive action from chapter and federal government officials.
- *Producers & Succession*—Not enough youth are actively engaged with agriculture. Traditional knowledge is not being passed down from one generation to the next.
- *Land*—Many land lots are too small to be profitable. Some land has been abandoned or has not been properly maintained (e.g., over-grazing, bare ground). Land use permits are difficult to obtain.



- *Economics*—Many farmers lack access to capital for equipment, seeds, etc. Small producers have difficulty paying off loans and interest. There are limited local sources for equipment repairs.
- *Education*—There are not enough venues for training youth who are interested in agriculture.
- *Public Perception*—The public has a false and negative impression of beef production practices.
- *Climate Change*—Land is drying out due to warming climate patterns.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Fair distribution of water rights and use, including agricultural, municipal and other industrial uses
2. More youth involvement in farming and ranching in order to continue our cultural traditions, knowledge and legacy
3. Proper utilization of water and land resources
4. Access to needed resources (e.g., capital, land, labor) to successfully engage in farming and ranching
5. Support for local producers to increase the availability of fresh, local foods
6. Increased land acreage devoted to farming to increase profits so that producers can have a debt-free lifestyle

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water Resources

1. Connect farmers with water that has no impediments in order to increase the land available for agriculture production.
2. Communicate how to improve water utilization.
3. Provide water quality data to the federal and Navajo farm boards on a regular basis.
4. Utilize our natural resources to lower the cost of living for farmers.
5. Promote new technologies and practices that use our existing natural resources (e.g., mulching).
6. Educate ourselves and the community.
7. Make the community a priority for tribal members' financially.

### Youth Interest

8. Support and expand existing programs (i.e., 4H, FFA).
9. Encourage "little ones" to play in the dirt and plant something.
10. Sponsor weekend workshops for youth with hands-on projects (e.g., grow flowers for Mother's Day).
11. Organize summer youth camps.

### Financial Resources

12. Promote resource fairs to share information and assistance in applying for financial resources.

### Local Producers & Local Food

13. Form a multi-stakeholder working group to develop solutions for increasing the number of local producers and access to local foods.
14. Develop an independent group, outside Navajo Tribal Council, to help lobby for support of small farmers.

### Land Resources

15. Consolidate fields that are adjacent, as well as expand easements and access points.
16. Streamline methods for utilizing water and land acreage in the most beneficial way.
17. Use economic data to promote the transition to producing traditional foods.
18. Provide a realistic picture of farm profitability.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	2	Bernalillo	1
Education & Research	6	Dona Ana	2
Farming/Ranching	11	McKinley	6
Financial Lending & Grantmaking	1	San Juan	14
Government Support & Regulation	2	Sandoval	1
Media	1	Other	1
Staff (NMF)	2		



# Resilience in New Mexico Agriculture

## Silver City Regional Meeting

### Summary

#### Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Silver City was convened on January 15, 2016. A diverse group of 41 people from eight different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts, advocates, health professionals and media.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

#### Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

##### Positive

- **Technology & Methods**—Due to improved tractors, harvesters, and irrigation systems, many farmers and ranchers are reducing their production time and costs and producing more diverse and affordable products. Science advances such as geographic information systems and plant genetics are also contributing to more sustainable economics.
- **Markets**—Increased demand for locally grown food and locally prepared food has expanded local markets for producers (i.e., restaurants, retail stores, farmer's markets). With the legalization of medical cannabis, more edibles are being processed which has created a niche market opportunity.
- **Conservation**—There is increased emphasis on agriculture practices that conserve water and maintain healthy soil and rangeland.
- **Industry Support**—The agriculture industry is seeing increased support from communities, as well as local, state and federal funding for the implementation of best practices. There has been an increase in USDA resources to stimulate local economies and Farm Credit programs to support young farmers.
- **Economics**—The agriculture industry has seen growth in demand for dairy, pecan and chili products which has increased profit potential for these producers. Improvements in transportation infrastructure has also helped decrease costs.
- **Population**—The population of the world is increasing and will need the products of the agriculture industry.
- **Food Safety and Waste**—Food safety has been improved through efforts to insure food can be traced to its source, and food waste has been reduced through the acceptance of using "ugly fruit" and community composting.

##### Negative

- **Water**—Access to clean and abundant water will continue to be uncertain for the industry due to the diversion of water from agriculture use, cities and counties purchasing agriculture land and water rights and the conflicts among urban dwellers, agriculturists and environmentalists over the use of the Gila River. Opportunities for producing low water crops (e.g., hemp) are being overlooked.

- *Regulations*—Members of the agriculture industry perceive many regulations as interfering with growth and return on investments (e.g., worker minimum wage, worker’s compensation insurance, trade policies with international trade partners, environmental protections, school regulations that ignore seasonal produce and restrict access to local markets, and the Food Safety Modification Act that restricts the sale of home-processed goods). The inconsistent application of regulations is also a concern (e.g., pollution of water by mines).
- *Producers & Succession*—More producers are needed to keep up with production demand. Many farmers and ranchers are retiring or going out of business for economic reasons. The next generation is losing interest in the industry and facing very steep barriers to entry.
- *Land*—Agriculture land is decreasing due to the impact of regulations, costs and prohibitive barriers to start-up businesses. The diversion of land to cities, counties and developers is also a factor (e.g., loss of water rights, lawsuits by neighboring subdivision residents).
- *Economics*—The rising costs for land and fewer options for access to capital is becoming a challenge for producers.
- *Markets*—Many local producers lack access to local buyers (e.g., institutional purchasing practices in schools are restrictive). Due to the lack of inspectors, cattle markets are moving farther away, increasing costs to ranchers.
- *Public Perception*—Negative media coverage and social media misinformation on food facts are creating a disconnect between consumers and producers.
- *Workforce*—Many agricultural laborers are seasonal and there has been a decrease in available labor. This also has an economic impact on communities as the unemployment rate is often higher than reported.
- *Import/Export Policies*—More food processing is done overseas which affects the local workforce. Also, supply infrastructure is non-existent in some rural areas.
- *Food Waste*—Overstocking in grocery stores and inefficient, cruel conditions in poultry and livestock operations lead to food waste.
- *Group Friction*—There is friction between large and small producers.

## Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Regulatory over-reach and interference
2. Consistent availability of qualified labor
3. Support of policymakers, particularly at the state level
4. Continued access to water
5. Production costs, especially for small producers (e.g., land, labor, infrastructure)
6. Education and retention of the next generation in agriculture
7. Engaging and motivating people to advocate for change
8. Adequate infrastructure and technology incentives

## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Regulatory & Business Climate

1. Educate policymakers and voters on agriculture issues.
2. Increase advocacy with legislators.
3. Curb the use of lobbyists.
4. Ensure agriculture industry representation in policymaking groups.
5. Freeze regulations until current ones are implemented.
6. Ensure the funding of mandates.
7. Give more control to the local and state levels.
8. Require counties to collaborate and not duplicate efforts.
9. Resolve immigration issues.

### Workforce

10. Increase mechanization and plant genetics.
11. Increase funds for agriculture continuing education and retrain unemployed workers who are currently on welfare.
12. Revive the cultural reconnection to the industry.
13. Establish a guest worker program.
14. Increase agriculture training for youth.
15. Fund implementation of solutions.

### Policymaker Education

16. Support Ag Day during the legislative session.
17. Encourage the NM Department of Agriculture to arrange meetings between legislators and all levels of producers.
18. Sponsor tours to agriculture operations.
19. Organize dinners on farms and ranches to discuss industry regulations, challenges and successes.

### Water

20. Encourage water retention and collection by individuals, as well as at the industry and statewide levels (e.g., home-based collection, dam building, multiple reservoirs and holding ponds).
21. Clarify regulations on who can buy water rights, how water can be collected and where water can/cannot be distributed (The example used was efforts by an overseas buyer to purchase water rights in the area and sell it on the open market to the highest bidder).
22. Provide economic incentives to retain, conserve and collect water (e.g., installing low-flow toilets).
23. Re-establish the acequia systems in this area and ensure they are functional and maintained.
24. Encourage more efficient irrigation practices.
25. Retain soil via composting, amendments and green housing.

### Producers & Succession

26. Increase the industry's presence in early childhood education.
27. Increase the exposure of the agriculture industry in K-12 classrooms (e.g., Home Economics, FFA).
28. Provide more hands-on, agriculture-related learning in the school curriculum (e.g., math, science).
29. Increase career and trade- oriented focus in schools.
30. Increase work study programs (e.g., get youth more involved in producing food).
31. Reduce the stigma of "staying close to home."
32. Provide tax credit incentives to help keep farms in the family.
33. Support groups organize social interactions which will encourage youth to learn more about agriculture.
34. Find the most appropriate groups that can pull industry sectors together.

### Advocacy

35. Increase public events in parks, home & garden expos and farmer's markets.
36. Encourage media coverage of agriculture issues.
37. Use social media to engage youth.
38. Provide incentives for school programs.
39. Provide education on food production.
40. Serve healthier foods in schools.

### Production Costs, Technology & Methods

41. Educate producers regarding irrigation systems innovations and subsidize their transition to better equipment and methods.
42. Increase the level of government outreach regarding support programs.
43. Continue grant funding for conservation methods.
44. Continue USDA-Farm Service Agency loans for equipment.
45. Support conversion to solar/wind power through tax credits and loans, and prevent power companies from restricting access to the power grid or making access cost prohibitive.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	2	Bernalillo	2
Commercial Production & Marketing	2	Dona Ana	3
Education & Research	8	Grant	20
Farming/Ranching	18	Hidalgo	3
Financial Lending & Grantmaking	1	Luna	9
Government Support & Regulation	3	Sandoval	2
Health	3	Santa Fe	1
Media	1	Other	1
Staff (NMF)	3		



# Resilience in New Mexico Agriculture Tucumcari Regional Meeting Summary

## Introduction

The **Resilience in New Mexico Agriculture** regional meeting in Tucumcari was convened on March 9, 2016. A diverse group of 61 people from twelve different counties attended the meeting, including farmers, ranchers, commercial producers and marketers, educators, researchers, financial lenders, grantmakers, government professionals, soil and water experts and advocates.

The purpose of the meeting was to elicit input from key stakeholders on the trends having the most significant impact on the agriculture industry, as well as challenges and potential solutions. These ideas will contribute to the industry and stakeholder research that will result in a long-term plan for a robust food and agriculture system in New Mexico.

Throughout the meeting, participants worked in table groups to discuss the following trends, challenges and solutions. Once information is gathered from all the regional meetings, it will be synthesized and potentially verified.

## Trends

Participants were asked to identify key trends that are having an impact (either positive or negative) on the agriculture industry, in general. The trends represent individual opinions of participants in attendance at this meeting and not necessarily the group as a whole.

### Positive

- *Technology & Methods*—New technologies are contributing to better water and land conservation, expanded production options and effective marketing efforts. New drip irrigation conserves water and protects land. Improved water metering creates better accountability for water use. Drought resistant plants, aquaculture, hydroponics and greenhouse growing provide production options. Through the internet, producers have increased access to information including competitive data, performance analysis and more direct marketing contact with consumers.
- *Markets*—There is growing consumer demand for meat products that are grown without antibiotics or growth hormones (e.g., grass-fed cattle and lean beef) which expand market opportunities. Some New Mexico products are becoming nationally recognized, such as hatch chilies. New international markets, like China, have opened up to beef exports from the United States. Ag-tourism has also shown growth. This increased demand for products can translate into increased profits for producers.
- *Population Growth*—World population continues to grow which can increase demand, open new markets, and lead to better profits for producers. An abundant, economical food supply can help consumers (less expensive prices) and producers (better profit margins), if food policy can be updated and balanced.
- *Industry Support*—There is better public awareness of the good stewardship practices of landowners and more recognition of agriculture's value to the state's economy and culture. A bigger presence of elected officials from rural counties who understand the agriculture industry helps protect the industry in New Mexico (e.g., strengthening of the Right to Farm Act).
- *Conservation*—There is a greater awareness of soil health and more conscious use of water.
- *Economics*—Prices of livestock prices have increased.
- *Transportation*—There have been some improvements in transporting goods and services which have benefited producers.
- *Youth Interest*—Some youth have shown a greater interest in learning about agriculture.

- *Urban Gardening*—There is more interest in urban agriculture in some communities.
- *Renewable Energy*—Wind farms are being perceived as the highest and best use of land in some areas.

### Negative

- *Water*—Expedited, long-term planning is needed.
- *Regulations*—There is too much interference and oversight of the industry by the government. The regulatory process is cumbersome and creates financial burdens, as well as an uncertain business climate for investments. There seems to be a lack of understanding in congress and the state legislature about current industry issues. Regulations are not updated to fit new industry situations. The cost of some regulations are having a detrimental impact on small rural communities. The regulations mentioned most often include workers' compensation, the Waters of the US clean water rule, the U.S. Fish and Wildlife rules, the Environmental Protection Agency clean-air and endangered species regulations and the U.S. Bureau of Land Management plans.
- *Producers & Succession*—The number of young people returning to the land is decreasing. Even those who inherit land have difficulty making a living due to the tax burden, healthcare requirements, fuel costs, etc. The capital required is high and access to financing is difficult (i.e., can't purchase land without cattle for collateral and vice versa). Land prices are too high for new producers to set up operations.
- *Economics*—There seems to be an overall decline in the economies of many rural communities. Food policies that balance the needs of both consumers and producers could help.
- *Supply Chain Infrastructure*—The availability of U.S. Department of Agriculture meat inspectors and local meat processors are insufficient to facilitate in-state, retail sales. Cattle and grain products have to be transported out-of-state, and therefore have increased production costs. This supply chain infrastructure limits the ability to expand farming and ranching operations. Access to markets is also difficult for smaller farmers and ranchers.
- *Public Perception*—The general public has a limited awareness of the difficulty and risk involved in agriculture and the profitability of farming and ranching operations. Misconceptions and negative perceptions (e.g., use of hormones and antibiotics) can have a serious impact on the industry.
- *Education*—The public education system is not supporting the needs of the industry for an educated workforce (i.e., science, research skills, business skills, vocational education, etc.). Schools have cut enrichment programs, sometimes based on misconceptions (e.g., school administrator stopped field trips to dairies because he thought it was traumatic for children to see cows connected to milking machines). The general public needs to learn about where food comes from and its nutritional value (i.e., gluten is not bad for everyone).
- *Workforce*—Farmers often have to work at other jobs during the week and then farm on weekends. It has become more difficult to find workers who are both qualified and willing to farm. Tighter border control has also limited available labor.
- *Import/Export Policies*—International trade policies have hampered the ability of our producers to compete effectively.
- *Technology & Methods*—More innovation and options are needed, especially for water conservation (e.g., mitigate tank evaporation) and renewable energy generation (e.g., better infrastructure and expanded transmission).
- *Climate Change*—There is increasing uncertainty of weather patterns.
- *Stakeholder Friction*—The population shift from rural to urban areas seems to have widened the gap between urban and rural communities, creating a lack of support to build cooperative solutions to challenges. There continues to be friction between the agriculture industry and environmental and animal rights groups.

### Challenges

These trends lead to a number of challenges which were prioritized by the participants.

1. Continued access to water
2. Regulatory over-reach and interference
3. Accurate information and education regarding food, health and the agriculture industry
4. Transfer of land and operations to the next generation
5. Improved supply chain infrastructure to reduce costs and expand markets
6. Viability and sustainability of rural communities
7. Ensuring educated and responsible human resources in rural communities
8. Fair prices for commodity products
9. Stakeholder friction within the agriculture industry



## Solutions

Given the challenges, participants were asked to recommend potential solutions that would make the most positive difference in the industry.

### Water

1. Address water issues in a systemic, coordinated way.
2. Engage in long-term water planning.
3. Protect senior water rights.
4. Complete the water adjudication process.
5. Complete 3-D aquifer mapping.
6. Pursue interstate regional agreements on the use of aquifer water.
7. Develop an economically viable way of using brackish water.
8. Educate producers about the existing legal options for water leasing.
9. Be willing to innovate and utilize the new technologies that are available.
10. Subsidize the costs of installing and repairing modernized water systems.
11. Meter at the well pivot.
12. Recycle wastewater.

### Regulatory & Business Climate

13. Move water regulations from the federal to the state level.
14. Approve renewable energy projects legislatively.
15. Remove barriers (e.g., right of way) to expanding transmission lines.
16. Remove the executive order that allows special interest groups to be reimbursed for attorney fees (i.e., Equal Access to Justice Act) when they are fighting the federal government.
17. Require government agencies (e.g., U.S. Fish & Wildlife, U.S. Bureau of Land Management) to clearly and timely notify conservation districts, elected officials, permittees and private landowners of changes in management and conservation practices.
18. Eliminate the ability of the Environmental Protection Agency to create regulations that address one environmental concern that overreaches into other industry segments.
19. Minimize the authority of the Environmental Protection Agency to implement policies and regulations on issues that have not been scientifically proven.
20. Use the power of the agriculture community to influence industry regulations.
21. Encourage agriculture producers and organizations, at all levels, to be engaged and to advocate for positive policies through legislative action.
22. Change U.S. senatorial representation to reflect agricultural interests.
23. Address apathy.

### Youth, Consumer and Policymaker Education

24. Implement school enrichment programs.
25. Support student organizations such as 4H and Future Farmers of America.
26. Teach agriculture in school classrooms.
27. Educate the general public, anti-agriculture groups and youth through the use broadcast and social media.
28. Create a ranch kitchen television program to educate consumers about health and nutrition.
29. Create a TED talk program on multi-generational farming and ranching families.
30. Create a farming and ranching Story Corp application.
31. Educate elected officials, at the state and federal levels, on agricultural issues in order to support their ability to implement favorable policies.

### Producers & Succession

32. Eliminate inheritance taxes.
33. Provide a capital gains tax break when producers sell their operations to new farmers.
34. Encourage and communicate rent-to-own options.
35. Encourage producers to create estate and succession plans.

### Supply Chain

36. Support the establishment of small-scale processing plants and transporters that will transport livestock to market in smaller increments (i.e., 20 head).
37. Collaborate on how to produce quantities that can be transported economically (e.g., use the coop model).
38. Streamline the opening of processing plants and increase the number of inspectors by moving the responsibility from the federal to the state level.
39. Hire more state or federal inspectors for meat products.
40. Use the franchise model to process and inspect all products at once.
41. Provide incentives to support next-generation entrepreneurs who are willing to create processing businesses.
42. Increase local grain storage and recycle to feed.
43. Use social media to help brand New Mexico products.
44. Expand into new product areas (i.e., jerky) to diversify producer operations.
45. Encourage large agriculture corporations, like John Deere, to sponsor and fund national commercials to promote beef products.
46. Encourage the Farm Bureau and Angus Association to host and fund creative programs on ranches for urban dwellers in order to educate consumers and promote/market ranch products.
47. Organize ranchers to collaboratively influence our congressional delegation.

### Rural Community Viability & Resources

48. Increase transparency in the legislative process.
49. Insure equal representation in the legislature.
50. Recognize the value of rural communities
51. Recognize the values available in rural areas that are not financial.
52. Support renewable energy (e.g., wind) as an economic development strategy for rural communities.
53. Support the National Young Farmers Coalition in sending interns to train on local farms.
54. Enhance the ability of rural communities to recruit and retain trained individuals in the occupations needed.

### Fair Prices

55. Establish value-added opportunities.
56. Expand opportunities in the United States and abroad.
57. Increase niche market opportunities.
58. Promote New Mexico branded products.

### Industry Infighting

59. Encourage all to get behind the one goal of promoting New Mexico products.
60. Work together to influence public perception.
61. Think in a unified way.
62. Be supportive of individual efforts.

## Meeting Demographics

Stakeholder Groups	# Participants	Counties	# Participants
Advocacy	1	Bernalillo	4
Commercial Production & Marketing	4	Colfax	1
Education & Research	10	Curry	10
Farming/Ranching	26	Dona Ana	2
Financial Lending & Grantmaking	4	Guadalupe	3
Government Support & Regulation	12	Harding	8
Soil & Water	1	Quay	25
Staff (NMF)	3	Roosevelt	1
		Sandoval	2
		Santa Fe	2
		Torrance	1
		Union	2