Your Place on the Map: Exploring Opportunities for Developing Agritourism

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AAEA Extension Competition
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AFRI Project #2014-68006-21824
Place-Based Innovation: An Integrated Look at Agritourism in the Western US

Colorado State University

Problem

- Changing agricultural landscape
  - Efficiency & Productivity
  - Greater competition global ag commodity markets
  - Profitability & diversification of small/medium farms and ranches
  - Rural community development

- Producers are unsure of ways to leverage opportunities such as:
  - Increasing public interest in food
  - Natural resource based recreation

Opportunities

- Diversification: Agritourism
  - Two primary reasons for adoption:
    - Resiliency
    - Efficiency
- Community spillover benefits
  - Tourism is an export industry
  - Otherwise scarce economic opportunities in rural areas

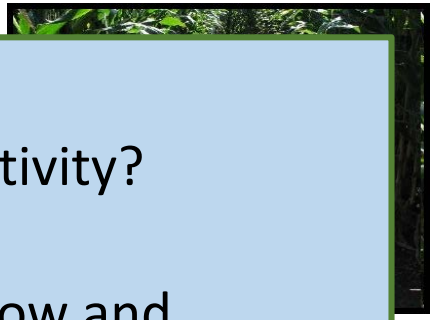
Background

- Agritourism grew 64% between 2002-2012
- Many types of agritourism

- Success of agritourism varies
  - Location, type of ag, surrounding markets

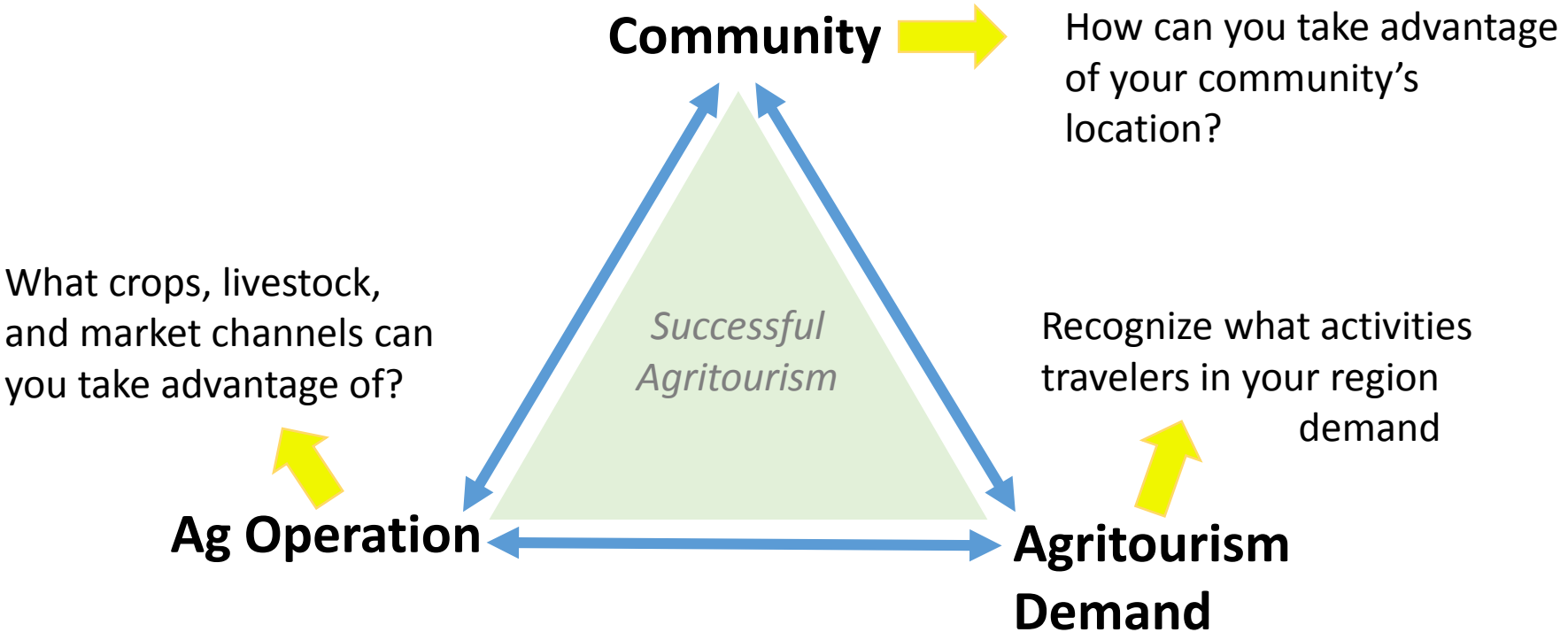
Identifying Target Audience

1. Diverse set of farms and ranches across the U.S.
2. Community and economic development and tourism practitioners
3. Government agencies and funding programs



- ***Identification:***
  - Where do we see hot spots of agritourism activity?
    - Why do we observe them where we do?
  - What makes an agritourism establishment grow and diversify their revenue stream?
    - Production types, location, principal operator attributes, marketing channels, etc.

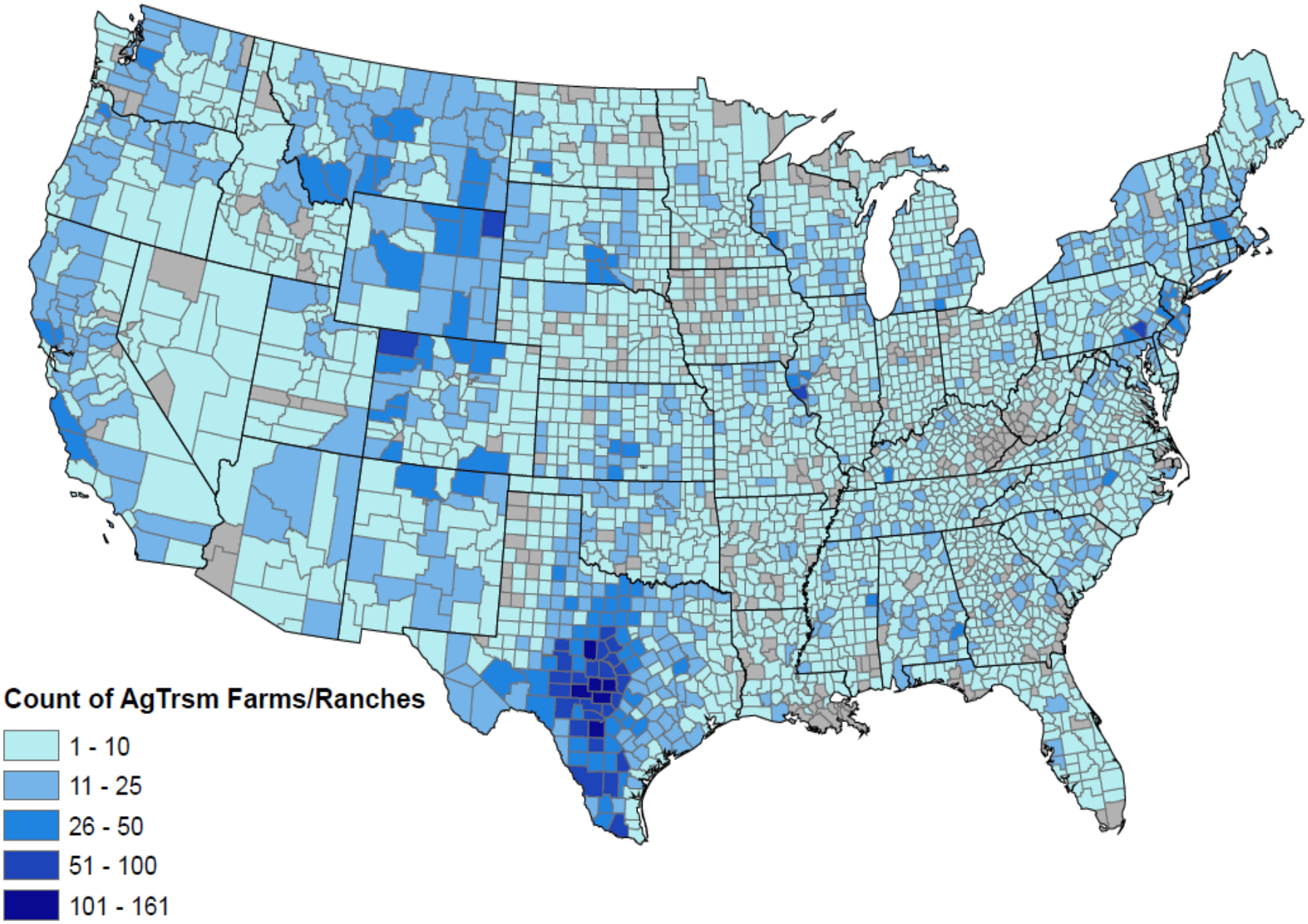
Leveraging Your Strengths



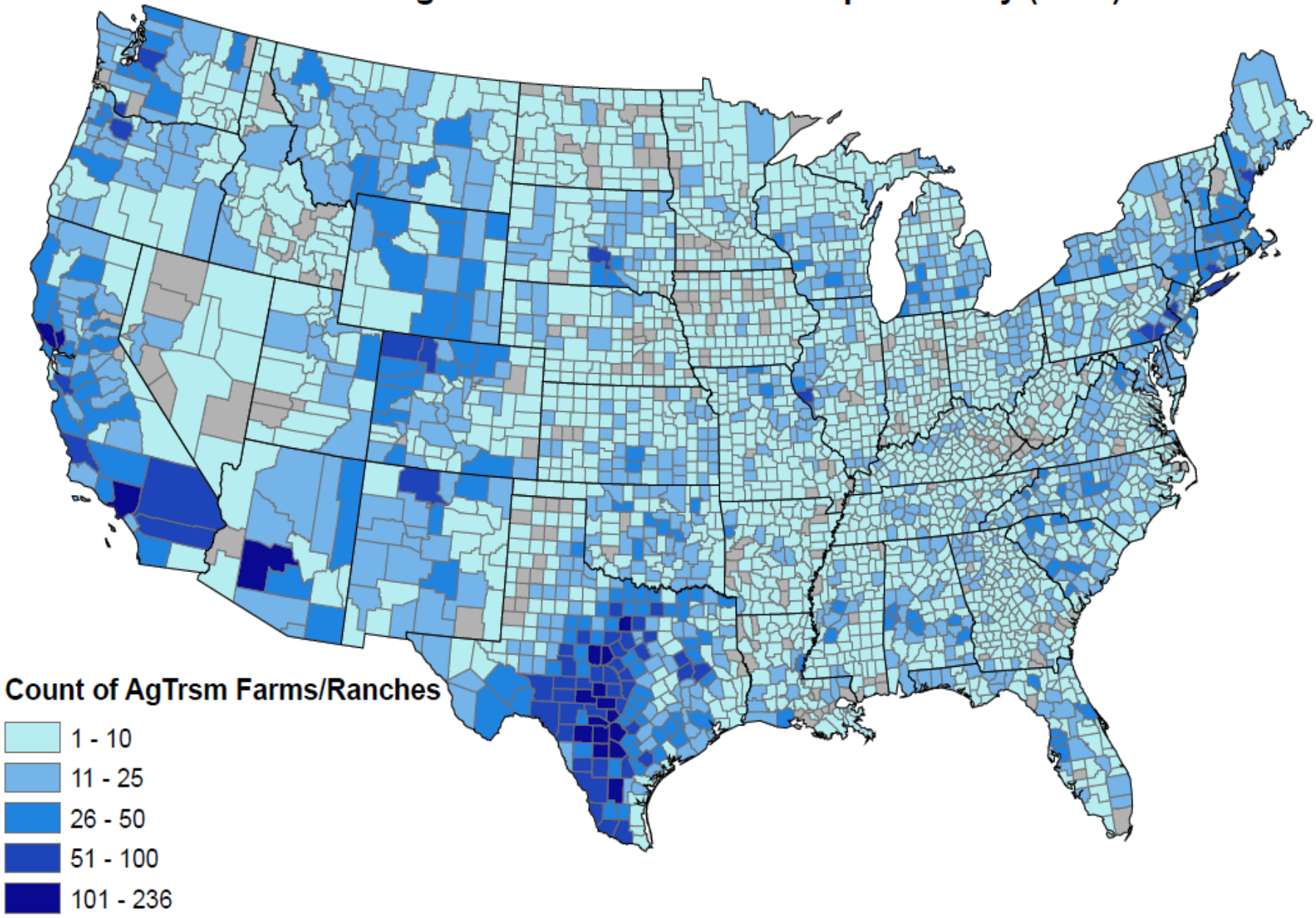
Goals

1. Increase awareness of agritourism benefits to individual farms and ranches and rural communities
2. Develop delivery and communication methods to reach target audiences effectively and efficiently
3. Further explore tourists behaviors through consumer research methods that recognize diverse preferences
4. Create local networks to increase diversification opportunities and provide community support
5. Ultimately increase the economic resiliency of agricultural businesses and their surrounding communities

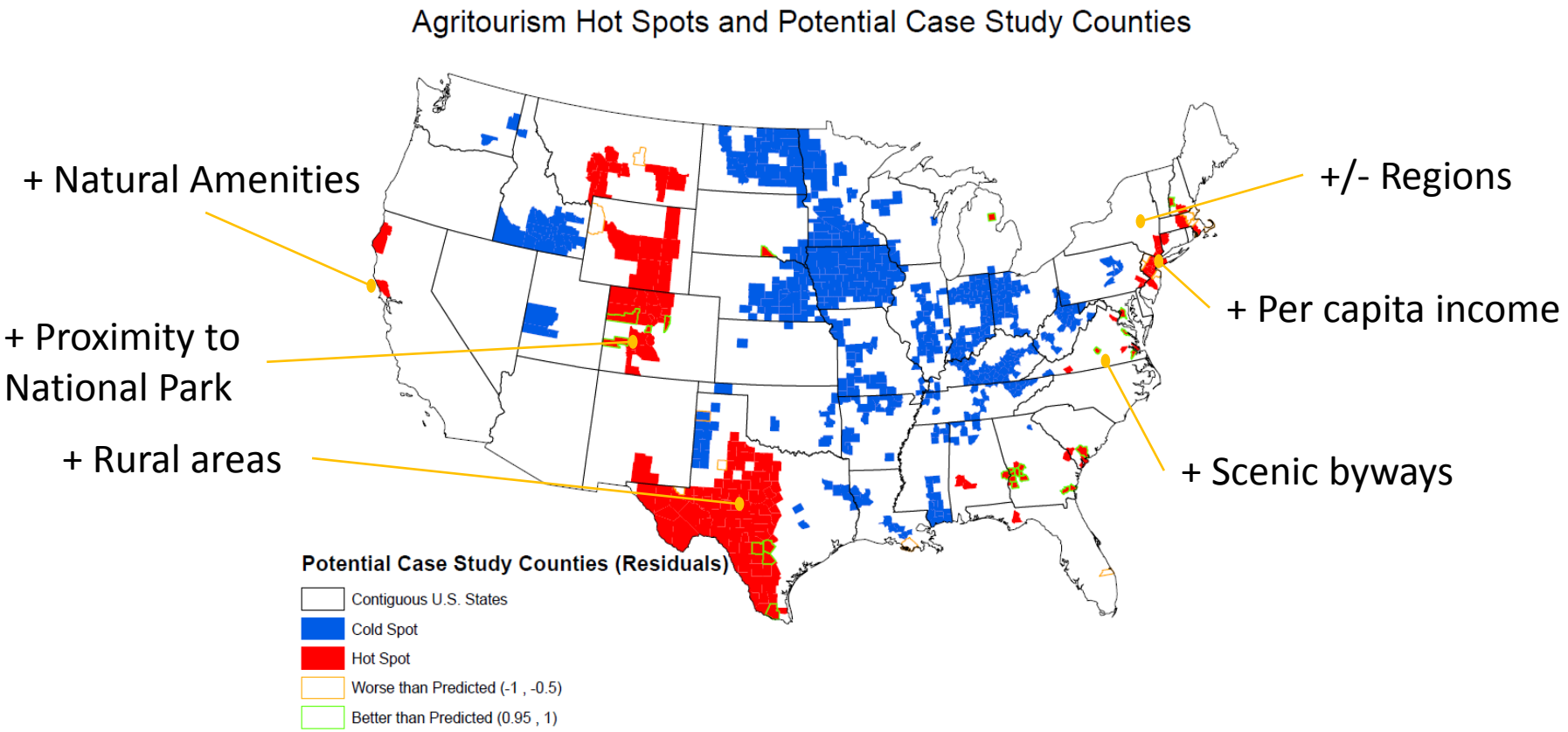
Number of Agritourism Farms/Ranches per County (2007)



Number of Agritourism Farms/Ranches per County (2012)



Dissertation Work



Successful Agritourism:

- *Fruit, grapes, nuts, specialty livestock*
- *Value added products*
- *Drivable from towns/cities*
- *Scenic surroundings*
- *Drivable from National Parks*
- *Experienced farmers and ranchers*

Partnerships

The Team: Advisory Board

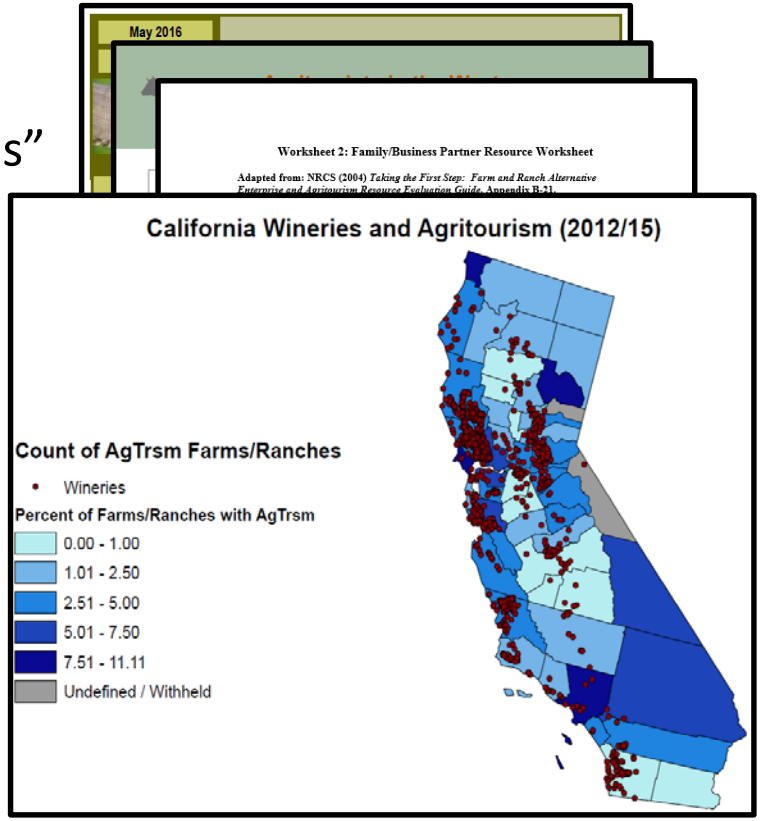
- Joanne Neft
  - Farmers market pioneer and local foods advocate
- Carmen Snyder
  - Executive Director of Sonoma County Farm Trails – NGO
- Wendy Lee White
  - Domestic Marketing Specialist, Colorado Dept. Ag
- Scottie Jones
  - Farmer at Leaping Lamb Farm – Alsea, OR
- Kelli Helper
  - Tourism organizations advocate

Responsibilities:

- Offer industry perspectives
- Provide feedback
- Recommend effective delivery methods

Communication Methods

- Fact sheets
  - “Mapping the Western U.S. Agritourism Industry”
  - Coming soon: “All Agritourists are not Created Equal”
- Quick facts
  - “Agritourists in the West”
  - “Comparisons of Agritourism Operations”
- Workshops
  - Interactive, worksheet based guidance
  - Networking
- Maps
  - Quick insight into industry
  - Case Studies
- **Website**



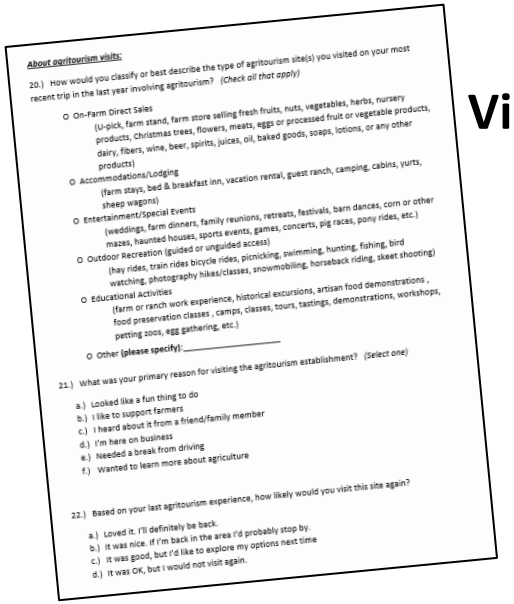
Communication Methods

- Visit the website for:
  - More information on agritourism in the U.S.
  - Updates on the project
  - Information on partnerships and community support
  - Upcoming events, presentations, or workshops in your area

http://agritourism.localfoodeconomics.com/

Next Steps…

- Study travel behavior of agritourism to understand the *demand* side of agritourism
- This will allow agritourism enterprises to more accurately cater their business' to their customers



About agritourism visits:

20.) How would you classify or best describe the type of agritourism site(s) you visited on your most recent trip in the last year involving agritourism? *(Check all that apply)*

- O On-Farm Direct Sales (U-pick, farm stand, farm store selling fresh fruits, nuts, vegetables, herbs, nursery products, Christmas trees, flowers, meats, eggs or processed fruit or vegetable products, dairy, fibers, wine, beer, spirits, juices, oil, baked goods, soaps, lotions, or any other products)
- O Accommodations/Lodging (farm stays, bed & breakfast inn, vacation rental, guest ranch, camping, cabins, yurts, sheep wagons)
- O Entertainment/Special Events (weddings, farm dinners, family reunions, retreats, festivals, barn dances, corn or other mazes, haunted houses, sports events, games, concerts, pig races, pony rides, etc.)
- O Outdoor Recreation (guided or unguided access) (hay rides, train rides bicycle rides, picnicking, swimming, hunting, fishing, bird watching, photography hikes/classes, snowmobiling, horseback riding, skeet shooting)
- O Educational Activities (farm or ranch work experience, historical excursions, artisan food demonstrations , food preservation classes , camps, classes, tours, tastings, demonstrations, workshops, petting zoos, egg gathering, etc.)
- O Other **(please specify)**: _____

21.) What was your primary reason for visiting the agritourism establishment? *(Select one)*

a.) Looked like a fun thing to do
b.) I like to support farmers
c.) I heard about it from a friend/family member
d.) I'm here on business
e.) Needed a break from driving
f.) Wanted to learn more about agriculture

22.) Based on your last agritourism experience, how likely would you visit this site again?

a.) Loved it. I'll definitely be back.
b.) It was nice. If I'm back in the area I'd probably stop by.
c.) It was good, but I'd like to explore my options next time
d.) It was OK, but I would not visit again.

Visitor Survey

Choice Sets

Goals Revisited

- Goal 1:
  - Identified target audience by recognizing **high potential communities** and what **successful agritourism** looks like
- Goal 2:
  - Utilized **partners** & **advisory board's** networks and experience
- Goal 3:
  - Learning how to **cater activities** to customers
- Goal 4:
  - Utilized **existing networks** and plan to establish new ones through **workshops**
- Goal 5:
  - Revealed farm and community **strengths** that producers can leverage to achieve their **goals**

Thank you!

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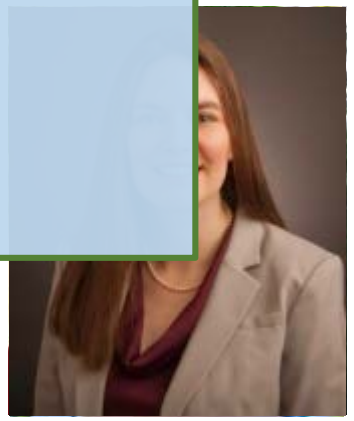
Appendix

The Team: Leadership Board

- Dawn Thilmany McFadden
  - Agribusiness Professor and Extension, Colorado State University
- Rebecca Hill
  - Coordinator of Community and Economic Development, Colorado State University
- Shermain Hardesty
  - Extension Economist, University of California–Davis
- Martha Sullins
  - Ag Business Management Specialist, Colorado State University

Responsibilities:

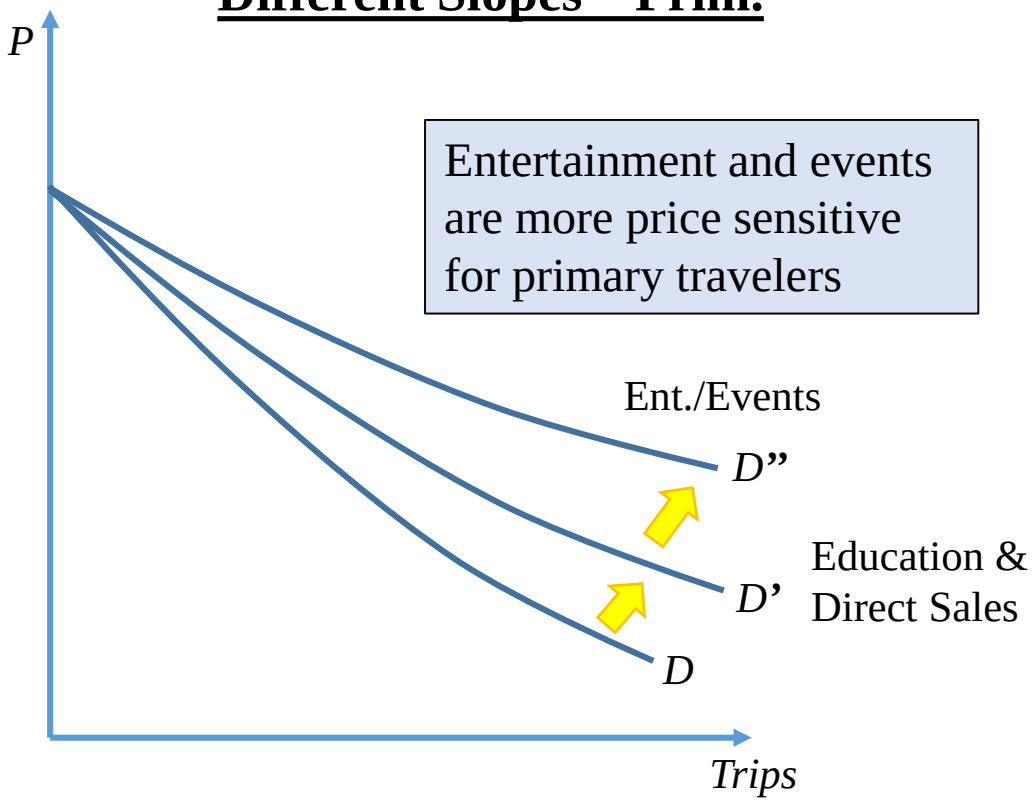
- Provide information and analysis
- Create communication materials
- Develop delivery methods



- Penny Leff
  - Agritourism Coordinator, University of California Small Farm Program
- Diane B. Gaede
  - Rec. Tourism and Hospitality Associate Professor, Northern CO University
- Sarah A. Low
  - Economist in Rural Economy Branch, Economic Research Service–USDA

TCM Results: Activities

Different Slopes – Prim.



Variable	Coefficient
Direct Sales	-0.0038
Entertainment/Event	-0.6911***
Outdoor recreation	0.9621***
Education	0.0296
Prim TC * Direct Sales	0.0041**
Prim TC * Ent./Events	0.0078***
Prim TC * Outdoor Rec.	-0.0023
Prim TC * Education	0.0041**
MD TC * Direct Sales	0.0140
MD TC * Ent./Events	0.0204**
MD TC * Outdoor Rec.	-0.0168*
MD TC * Education	0.0020

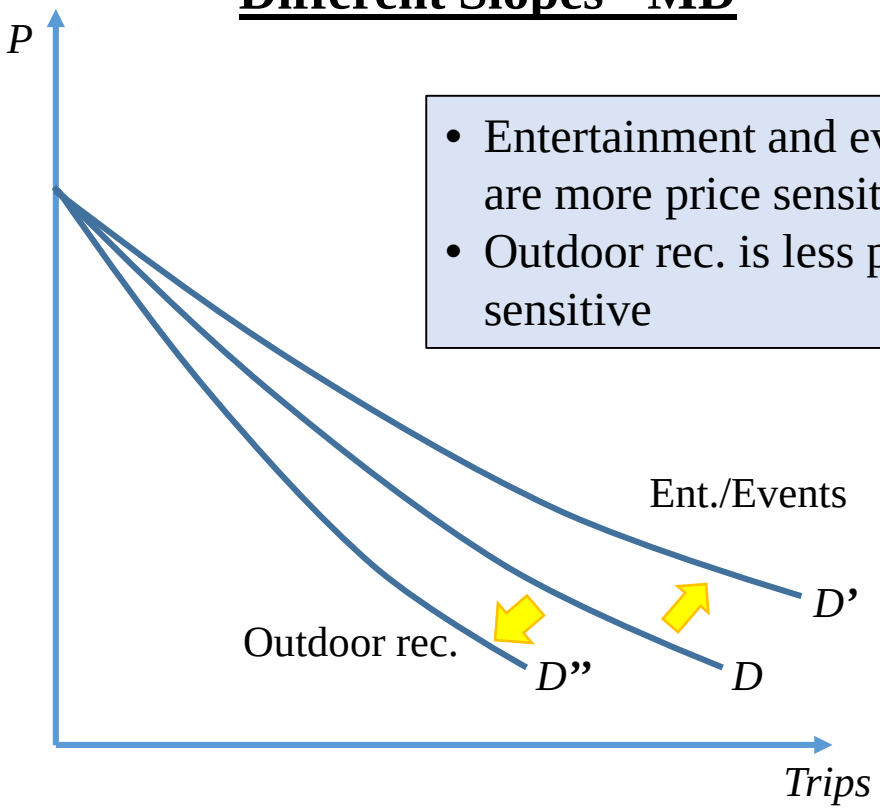
Wald Chi^2: 100.11***

*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

TCM Results: Activities



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Wald Chi^2: 100.11***

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*Significant at 10% level

TCM Results & Implications

- Demand for agritourism differs:
  - Region
  - Activity
  - Everyone has a shot
- The benefits consumers receive is much higher than the costs
  - Chance of
- Agritourism may be more successful in recessionary times compared to other travel options

Significant Contributors to Agritourism Hot Spots

Variable	Region	Correlation	Interpretation
Miles of scenic byways	All	(+)	More scenic byways may lead to a greater probability that a county is a hot spot
Travel time to National parks, monuments, etc.	Northeast	(–)	Being closer to a national park may increase the probability a county is a hot spot
Travel time to National parks, monuments, etc.	South	(+)	Being farther from a national park may decrease the probability a county is a hot spot
Natural Amenities	All	(+)	More natural amenities may lead to a greater probability that a county is a hot spot
Income	All	(+)	Higher per capita income within a county may increase the probability a county is a hot spot
Population	All	(–)	Counties with smaller populations may be more likely to be a hot spot
Region	Northeast	(+)	Counties in the Northeast may be more likely to be an agritourism hotspot
Travel time to city of at least 250,000 people	All	(+)	Being farther from a large city may increase the probability a county is a hot spot
Farm size	Northeast	(–)	Counties in the Northeast with smaller farms may be more likely to be a hot spot

Stage 1 – results continued

Table 2. Heckman Stage 1 – Probit model, Dependent= 1 if Agritourism, 0 otherwise			
Operator Attributes			
	Variable	**Coefficient**	**Std. Dev.**
Farm level	Intercept	-1.9881***	0.0375
	Female	0.0799***	0.0076
	Black principal operator	-0.0982***	0.0226
	Asian principal operator	0.0219	0.0360
	Hawaiian principal operator	0.0963	0.1101
	American Indian principal operator	-0.2152***	0.0211
	Retired principal operator	-0.1356***	0.0075
	Age of principal operator	0.0042***	0.0002
	Days worked off farm	-0.0303***	0.0017

Stage 1 – results continued

Table 2. Heckman Stage 1 – Probit model, Dependent= 1 if Agritourism, 0 otherwise			
Crops and Livestock			
	Variable	**Coefficient**	**Std. Dev.**
Farm level	Hay and grains	-0.0931***	0.0063
	Christmas trees	0.2998***	0.0249
	Maple products	-0.0500	0.0397
	Bee products	0.1185***	0.0173
	Vegetables	0.2694***	0.0130
	Fruit and Nuts	0.1572***	0.0121
	Berries	0.2188***	0.0179
	Grapes	0.4997***	0.0396
	Cattle	-0.0575***	0.0062
	Horses	0.1837***	0.0064
	Sheep and goats	0.1655***	0.0090
	Pigs	0.0619***	0.0150
	Poultry	-0.0721***	0.0093
	Other livestock	0.3950***	0.0142
	Forest products	0.3640***	0.0134
	Organic certified	0.1236***	0.0218
	On farm packaging facility	0.3025***	0.0192

Stage 1 – results continued

Table 2. Heckman Stage 1 – Probit model, Dependent= 1 if Agritourism, 0 otherwise			
	Spatial		
County level	South	0.0784***	0.0085
	Midwest	-0.2498***	0.0099
	Northeast	0.0717***	0.0113
	Miles of Byways/100 sq. mi.	-0.0475***	0.0027
	(Miles of Byways/100 sq. mi.)^2	0.0783***	0.0081
	Miles of interstates/100 sq. mi.	0.0275***	0.0088
	(Miles of interstates/100 sq. mi.)^2	0.0163***	0.0017
	Ln(population)	-0.0008***	0.0001
	Farm dependent	-0.0015	0.0033
	Recreation Dependent	-0.0010*	0.0005
	Entrepreneurship		
	Breadth	0.5033***	0.0364
	Patents per 1,000 people	0.0040***	0.0010

Stage 2 - Results

Table 3. Heckman Stage 2 – Ordinary Least Squares Dependent: Agritourism Revenue ($)			
	Variable	Coefficient	Std. Dev.
Farm level	Intercept	70,448.00***	17,721.00
	Acres	2.73***	0.0755
	Age of principal operator	-346.01***	55.0584
	Farming as primary occupation	265.04	1,179.2042
	Value added products	12,149.00***	2,187.9067
	Direct to consumer	-9,220.57***	2,138.7186
	Organic certified	-23,366.00***	3,894.6372
	Direct to retailer	8,313.59***	2,618.2761
	On farm packaging facility	-6,337.42	4,051.0357
	Years in operation	159.43***	46.2805

Stage 2 – Results continued

Table 3. Heckman Stage 2 – Ordinary Least Squares Dependent: Agritourism Revenue (Dollars)			
	Variable	Coefficient	Std. Dev.
	Crops		
Farm level	Hay and grains	1,964.35	1,412.0511
	Christmas trees	-12,882.00***	4,733.9266
	Maple products	-9,362.41	7,133.6236
	Bee products	-12,540.00***	3,206.4016
	Vegetables	377.48	3,024.0921
	Fruit and nuts	23,232.00***	2,464.7570
	Berries	-9,814.44***	3,428.3178
	Grapes	50,418.00***	7,099.1854
	Cattle	-6,071.46***	1,332.6021
	Horses	-1,040.71	1,743.8180
	Sheep and goats	-7,966.00***	2,007.1649
	Pigs	5,608.00*	2,939.9056
	Poultry	-529.47	1,889.2235
	Other livestock	11,322.00***	3,510.9299
	Forest products	-12,328.00***	3,266.6728

Stage 2 – results continued

Table 3. Heckman Stage 2 – Ordinary Least Squares Dependent: Agritourism Revenue (Dollars)			
	Spatial		
County level	South	-1,615.01	2,181.9802
	Midwest	8,142.68**	3,272.9859
	Northeast	7,637.49***	2,865.2940
	Natural amenities scale	798.50**	342.3572
	Minutes to population of ≥10,000 people	21.99	20.8241
	Hours to NPS attraction	-1,744.65**	709.3991
	Miles of Byways/100 sq. mi.	-338.75	339.5669
	(Miles of Byways/100 sq. mi.)^2	-6.27	21.4604
	Miles of interstates/100 sq. mi.	94.82	540.9491
	(Miles of interstates/100 sq. mi.)^2	-54.17	71.9517
	Agritourism revenue per square farm mile	0.12***	0.0120
	Per capita income	0.19***	0.0603
	Ln(population)	3,110.45***	604.4923
	Farm dependent	-4,860.08***	1,634.5823
	Recreation dependent	-46.70	1,693.8561
	Inverse Mills ratio	-30,780.00***	7,309.1848

Take Aways

- Agritourism can assist in:
  - Mitigating risk from market fluctuations
  - Providing labor for family members
  - Taking advantage or natural assets and market opportunities
- Agritourism can be successful across a broad spectrum of farms and ranches
- Agritourism stimulates the surrounding community's economy by bringing in outside dollars
- Support programs exist and are growing
  - Keep in touch for more opportunities near you!

What does an agritourism farm/ranch look like?

- Looking at Census of Ag farm level data
- Successful agritourism looks like…
  - Production:
    - Fruit, grapes, nuts, or specialty livestock
  - are likely to sell value added products like jam, leatherwork, or other crafts and foods
  - are more commonly in natural amenity rich areas
  - fare better when in closer proximity to other outdoor recreation sites and other agritourism sites
  - tend to be in rural areas and areas with high per capita incomes


Photo: Tammy Mattics
Photo:
UNITED STATES
CANADA
MEXICO
Pacific Ocean

May 2016

EDR 16-01

Economic Development Report

Colorado State University Extension

Department of Agricultural and Resource Economics, Fort Collins, CO 80523-1172
http://dare.colostate.edu/pubs

MAPPING THE WESTERN US AGRITOUTISM INDUSTRY: HOW DO TRAVEL PATTERNS VAY BY LOCATION?

Anders Van Sandt,[1] and Dawn Thilmany[2]

The evolution of the American farm landscape, with a persistent co-existence of large, scale-efficient farms being complemented by more numerous small and mid-sized farms that explore alternative business models to retain their farms, has led to some interesting business patterns in rural areas. Increasingly, small or medium sized farms seek diversification strategies, such as agritourism, to remain viable and leverage interesting aspects of their surrounding communities and rural areas. This has been particularly prevalent in amenity rich areas such as New England and the West. While adoption of agritourism as a farm enterprise is concentrated in some regions of the country, agritourism grew nationally at a rate of 64%, between 2002 and 2012. This steady growth comes from a diverse set of farms and ranches across the U.S.

Agritourism is of particular interest to those who are interested in the intersection of agriculture and rural development since it has potential benefits for both the individual farm or ranch itself, but also provides positive spillovers for their surrounding community like educating the public about agriculture and increased economic activity (Nickerson et al., 2001; Philip et al., 2010; Tew and Barbieri, 2012, Sullins et al., 2010).

So, the motivations for adopting agritourism and partnering with local communities may seem clear, but little is known about the spatial dimension of agritourism across the US. This fact sheet focuses on the place-based elements that may influence where we do (and do not) see agritourism activity throughout the US, with a particular focus on the Western region. Learning about why agritourism actively developing in certain parts of the U.S. may provide agricultural producers, economic development practitioners, and even policy makers with information as to how their community's assets may catalyze (or constrain) their opportunities for agritourism growth and economic development.

Differences Across Space

Figure 1 shows where the largest quantities of agritourism farms and ranches (that reported any revenues from agritourism enterprises) are located across the U.S. using data gathered from the USDA's Agricultural Census (2012). The map indicates high densities of agritourism farms and ranches along the West Coast, Rocky Mountain States, Texas, and the Northeast. Perhaps it is

[1] Masters Candidate Dept. of Agricultural and Resource Economics, Colorado State University.
[2] Professor, Dept. of Agricultural and Resource Economics, Colorado State University.

most interesting to note that there are "pockets" of higher agritourism activity throughout the US and it appears there may even been clusters of counties with high activity adjacent to each other. (It should be noted that the uncolored counties, with the lightest shading, could indicate no agritourism, but may also not have data available because of disclosure issues if there are too few operations reporting).

Table 1 presents similar information with a table of the farm and ranch numbers participating by state and county among the top areas in the West. California is not only a top state in West, it is the location of the the 2nd highest frequency of agritourism operations in the whole US after Texas. Plus, it has some important counties, including wine country, that have the highest frequency among Western counties.

Figure 1.

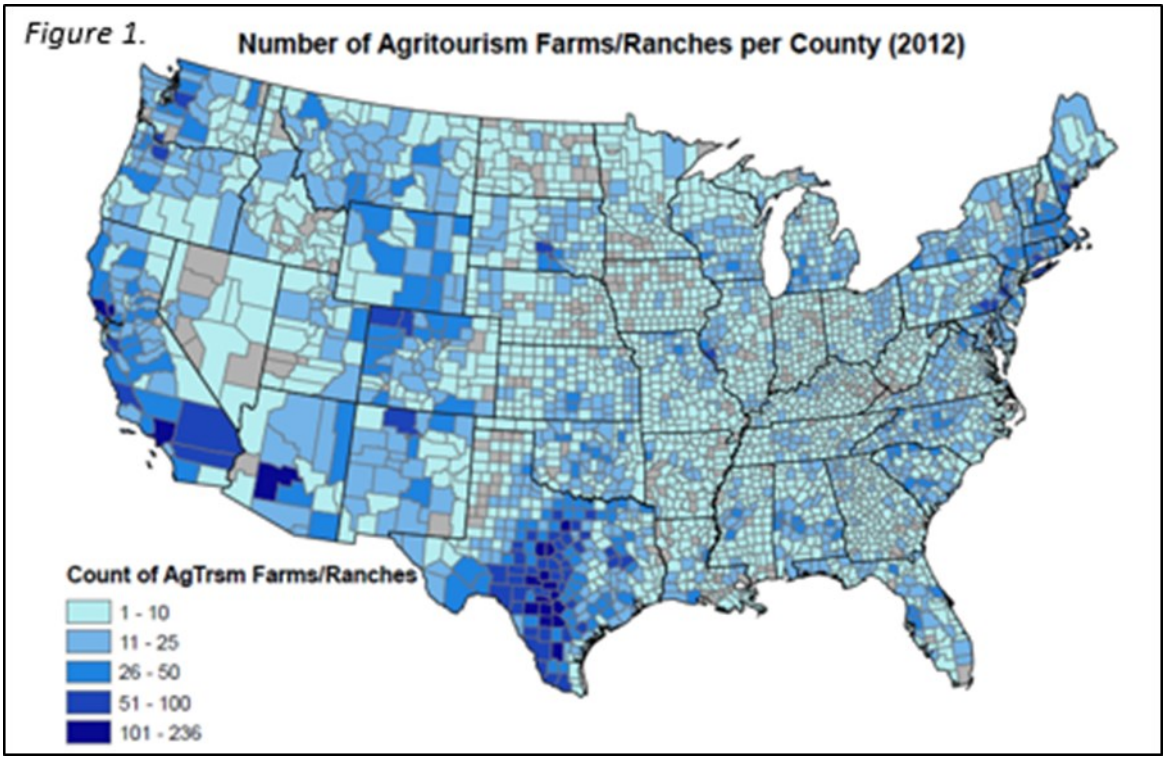


Table 1-Number of Farms and Ranches Reporting Agritourism Revenues, 2012
Top 10 States and Counties in the Western US

State	Farms- 2012	State	County	Farms-2012
United States	33161	CA	Sonoma	135
California	1699	CA	Napa	119
Colorado	864	CA	Maricopa	114
Montana	726	HI	Hawaii	106
Washington	585	CA	Los Angeles	104
Oregon	576	NM	Rio Arriba	88
New Mexico	489	CA	San Luis Obispo	76
Wyoming	450	CA	Riverside	75
Arizona	323	WA	Clark	72
Hawaii	233	CA	San Bernardino	63
Utah	229	WA	King	63

But, there are a fairly notable number of enterprises across all the top ten states in the West, and there are top counties in four of those states. California and Hawaii may benefit from the overall high tourism to these states, and the unique food production systems and offerings that are available in their regions because of subtropical and tropical climates.

Table 2- Agritourism Revenues Reported by Farms and Ranches, 2012
Top 10 States and Counties in the Western US

State	2012 Revenues ($,000)	State	County	Revenues ($,000)
United States	$704,038	CA	Napa	$23,723
California	$64,520	HI	Honolulu	$6,449
Colorado	$28,240	HI	Maui	$6,416
Montana	$20,310	NM	Colfax	$5,433
Hawaii	$17,768	UT	Weber	$5,239
Washington	$15,313	AZ	Pima	$5,217
Wyoming	$14,228	HI	Kauai	$3,874
New Mexico	$13,373	CO	Larimer	$3,548
Utah	$10,695	CO	Routt	$3,401
Oregon	$10,689	WA	Spokane	$2,806
Arizona	$10,573	CA	Mono	$2,663

Table 2 shares another indicator of agritourism activity, the agritourism revenues reported by farms and ranches in various states and counties. Total reported revenues in the US were $704 million, and California alone represents almost 10% of the total US revenues (even though it is home to only 5% of operations). Moreover, Napa County alone represents over one-third of California's revenues. It is a clear attraction for food and farm based tourists. Yet, there are other significant states and counties in the West, with top ten counties in seven different states of the West. These top ten states represent almost a third of US agritourism revenues even though they are home to less than twenty percent of operations, suggesting the dependence and activity surrounding agritourism in the West may be strong compared to the greater US.

Given this map and tables, and the variety of motivations to adopt, it is compelling to explore why these enterprises emerge and flourish across a heterogeneous landscape. This means that what makes agritourism successful in one county may not make it successful in another county. In order to maximize the potential gains that may accompany agritourism activities for farms and its positive spillovers for surrounding communities, these differences across places need to be more clearly understood.

Identifying Hot Spots of Agritourism in the US

It is becoming increasingly common to pay greater attention to place-based factors and patterns in economic development and other social sciences. One way to explore spatial relationships across data is through statistical analysis. In this case, we applied LISA analysis (Local Indicators of Spatial Autocorrelation) as a method to detect areas of high (low) activity surrounded by other areas of high (low) activity. Figure 2 was created by applying this tool to data from the 2012 Agricultural Census on the percent of farms and ranches with agritourism in each county, Van Sandt et al. (2016) generated a hotspot map of agritourism in the U.S.

The percent of farms and ranches was used as an indicator in this case as it may suggest how important agritourism options are to the viability of the agriculture sector in these areas. Counties shaded red, or hot spots (to contrast the blue, cold spots) represent counties with a relatively high (low) percent of agritourism surrounded by other counties with relatively high (low) percent of agritourism as well.

It is important to note here that even while the counties around the hotspots are not shaded, by definition they help define the hotspot and can therefore be interpreted as part of that hotspot.

While Figure 1 shows where the number of agritourism farms and ranches are most concentrated, Figure 2 starts to give some insight into which regions' agricultural industries (and perhaps communities) rely relatively more heavily on agritourism, and gives us some insights on whether the conditions to adopt may differ across regions. As one would expect from Tables 1 and 2, wine country in California (Sonoma County) still remains a prominent hotspot for agritourism. However, much of the rest of California (and generally the entire Pacific Coast) is otherwise not populated with many hot spots. Hot spots are more prominent and widespread in the Rocky Mountain States, and other notable regions in the US includ Texas, and smaller geographic pockets in the Northeast. Possible reasons for these hot spots of agritourism activity may be due to regional differences in natural resources (Rocky Mountain States), larger acreages that can offer access to hunting and outdoor recreation (Texas), and proximity to large population centers that may seek farm getaways and direct food market experiences (Northeast).

Because the spatial analysis that created the hot spot map of agritourism in the U.S. showed some interesting patterns, Van Sandt et al. (2016) created another model to identify what factors contribute to any one county being an agritourism hot spot. Several significant factors were found to be important including:

- Scenic byways (+)
- Travel time to National parks, monuments and seashores (depending on region)
- Natural amenities (+)
- Income (in that county) (+)
- Population (in that county) (-)

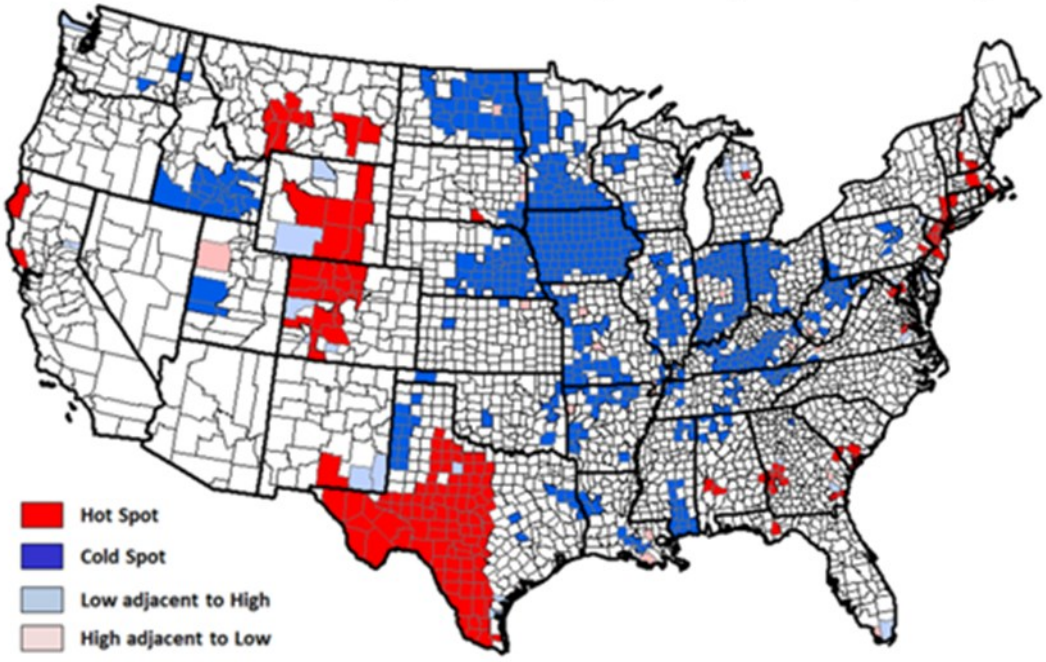
Of lesser importance

- Region (Northeast only)
- Travel time to large city (of over 250,000) (+)
- Farm size (only in the Northeast) (-)

It would seem that the "get away" effect may be a significant driver for agritourism in the US. Miles of scenic byway were more important indicators of agritourism hotspots than access to interstate variables, suggesting a travel pattern that trades off speed for scenery. Moreover, the fact that high natural amenities and less dense populations within counties actually attract agritourists indicating that factors that

Figure 2.

Hot Spots of Percent of Farms/Ranches with Agritourism (LISA analysis – 2012)



What's Driving Agritourism Clusters?

that may detract from more traditional economic development strategies are conducive to this sector's growth. The Scenic Byway Program started in 1991 (FHWA), and the bulk of agritourism growth (at least as measured by the USDA) occurred after 2007 (USDA (b)), so perhaps they have been complementary to one another in terms of tourism activity.

It is interesting to note that the travel time to National parks, monuments and seashores was significant but with some key regional differences. It was significant for both the South and Northeast regions, but in the Northeast region, a one hour decrease in travel time to a national park or monument increased the county's chances of being a hotspot relative to a Midwest county. But, in the South, an opposite effect is found. These contrasting results are important for agritourism operators to understand so they can adjust their expectations about the joint interest of travelers to visit both public (and free) national designation sites in the same trip as an agritourism visit. In essence, it may indicate that travelers in some regions see complementarities between farms and ranches and their visits to national sites, but in other regions, those sites have no effect or detract from farm visits.

In terms of pure region effects, it seems agritourism hotspots more commonly exist in the Northeast perhaps due to the dense population centers adjacent to or within that region. And the effect is large: a given county in the Northeast is 89% more likely to be a hotspot than a given county in the Midwest, a finding that reinforces our visual patterns shown in Figures 1 and 2.

It appears average farm size (of all farms in a county) did not play a significant positive role in determining if a county was a hotspot for agritourism. Again, the Northeast is the one exception: compared to the Midwest, counties in the Northeast with a relatively high share of smaller farms were more conducive to being a hotspot than counties with primarily larger farms. This may be related to the type of agricultural enterprises in the Northeast. For example, if visitors are hoping to see diversified operations with several types of animals and crops, it may be that farming approaches used by smaller farms are more likely to be attractive to visitors.

There is increasing interest of how to promote more entrepreneurship in rural areas, and one would consider some of the challenges to operating a successful agritourism site as entrepreneurial in nature.

agritourism site as entrepreneurial in nature. Responding to changing consumer interests and demands, and juggling the operational, logistical and partnership challenges of events and hosted programs take a different set of skills than production agriculture. So, we also explored the relationship between common entrepreneurial indicators and hotspots. Although a couple of entrepreneurial variables were included, they were not found to be a significant. But, perhaps more measurements capturing the entrepreneurial nature of an area should be considered and implemented in future studies to further explore the interdependence with agritourism hotspots.

Implications for Agritourism Operators

These spatial patterns are interesting to discuss, but more importantly, we must consider what it means for existing operators or those farms and communities who want to explore opportunities to expand in this sector. It appears the West has opportunities, but perhaps it can learn from the Northeast's successes. With respect to the Northeast result, urbanization may explain their hotspots as population centers represent many travel opportunities from within-region visitors who want weekend getaways from the traffic and congestion that are increasingly common in urbanized regions. Farm operators are then able to take advantage of the high in-region traffic of potential agritourists and/or that region's farms may have more well established support programs, encouraging them to take advantage of market opportunities including nearby national parks. No matter what is driving these regional differences, the varying coefficient signs allude to an interesting story of unique market pressures and operator motivations for adopting agritourism in the Northeast, which areas in the West with high growth may be able to emulate.

It may seem counterintuitive that agritourism hotspots are also more likely to exist in less populated areas. This result may fall more in line with the story of resiliency, where farms and ranches in less populated areas far away from large cities are more likely to adopt agritourism due to having few other economic development opportunities. Although there is little a county can do about its natural amenity endowment, understanding how competitiveness may be influenced by their locational attributes is important, but it is encouraging to see other factors matter as well. Hot spots are rural areas dependent on agriculture may seek to take advantage of their history, natural resources, or unique method/type of food production in order employ to

family members, mitigate financial pressures, or address some other type of concern unique to their business or community. And, given the draw of natural amenities, byways or national parks in their region, this is one case where remote areas may exploit opportunities to gain tourism business by diverting traffic from other draws that bring visitors to their area.

In short, the spatial patterns reported across US farms and ranches show an interesting patchwork that indicates there are a diverse set of factors that may contribute to successful regional agritourism development efforts. Understanding how different aspects have worked differently in different places allows one to consider which model may be most effective for an operator or community to emulate in their own development plans.

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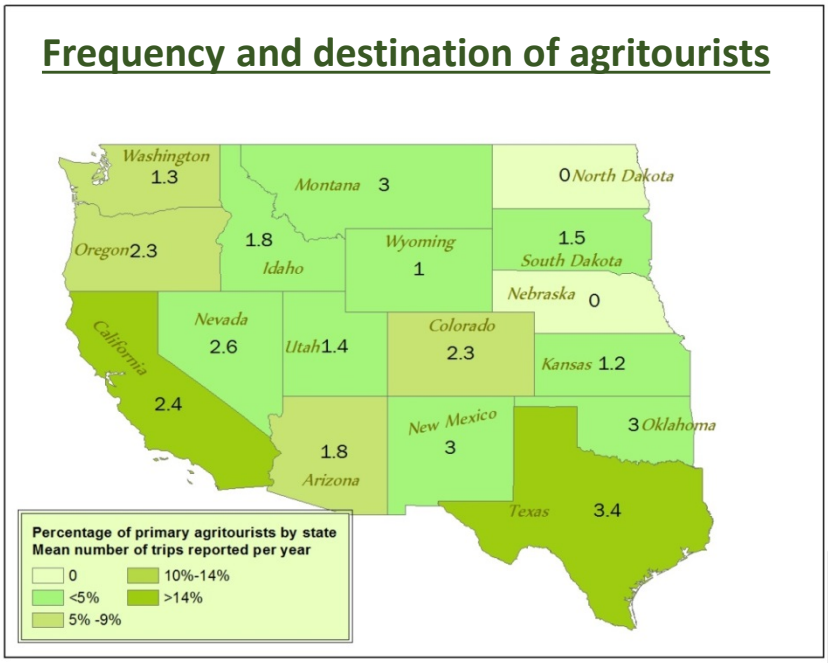
Agritourists in the West

According to the 2012 USDA Ag Census, agritourism operators reported $704 million in revenues. This study explores traveler behavior further using a 2014 survey of those that visited 17 Western states.

Frequency and destination of agritourists



Key Findings

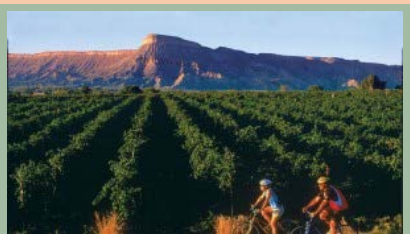
- *California and Texas most popular destinations*
- *Followed by the Pacific NW, Colorado and Arizona*
- *Texas, New Mexico and Montana agritourists were more active travelers*
- *Some areas of the Great Plains see few travelers*

Results based on 2014 survey of 806 travelers

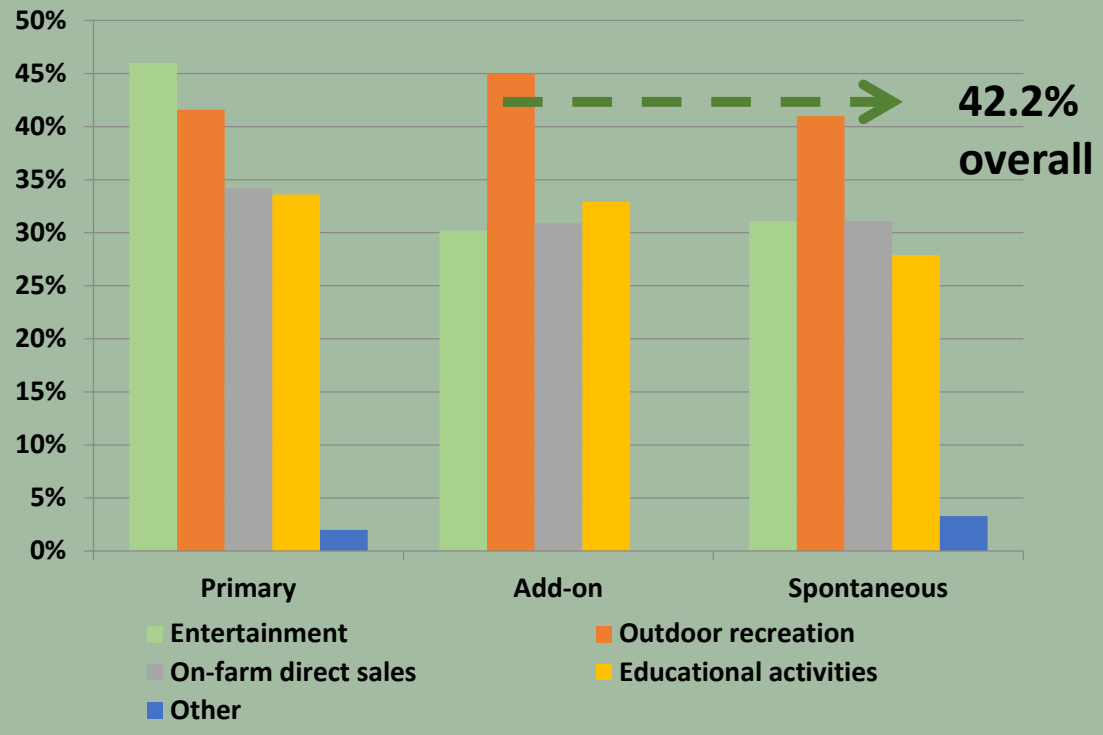
- Ages 18-84; (median=34)
- 43% male; 57% female
- 2% retired; 19% not employed
- 41% earned >$75K

Key Findings

- *Great variety of activities among agritourists*
- *75% noted agritourism was primary reason for their Western trips*
  - *Entertainment and events were popular*
- *Outdoor recreation at agritourism operations was most common activity among traveler groups (42% overall)*



Popular Activities by Type of Agritourism Trip



A Closer Look at Agritourist Travel Planning

Place Based Innovation:

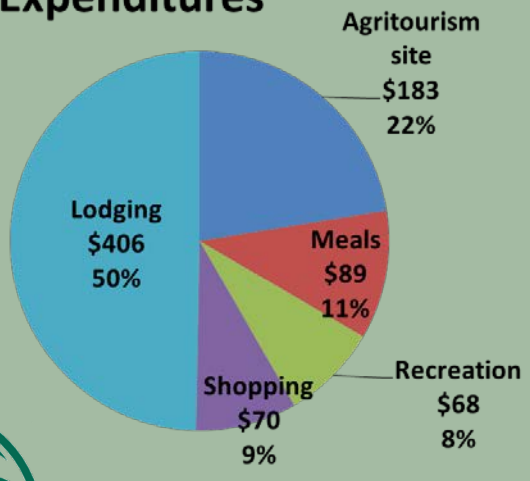
An Integrated Look at Agritourism in the Western US

Agritourist Trip Type	Total average expenditures (day trips)	Share spent at AgTrsm site (day trips)	Total average expenditures (overnight trips)	Share spent at AgTrsm site (overnight trips)
Primary	$ 75.74	50%	$ 224.19	32%
Add-on	$ 68.34	27%	$ 112.04	26%
Spontaneous	$ 57.54	39%	$ 73.35	28%

Key Findings

- *Primary agritourists are spending a significant share of $'s at the agritourism site*
  - *Other recreation, lodging and meals represent other potential revenue sources*
- *Although word of mouth is still a key influence on trip planning....*
  - *.....websites, social media and travel review sites are more commonly used*
  - *Use by agritourists was higher than among broader national travelers*

Trip Expenditures



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