



High Tunnels Now Offered

Idaho NRCS Makes Changes to EQIP Organic Initiative

Clint Evans

Idaho Natural Resources Conservation Service

The 2008 Farm Bill provided specific funding through the Environmental Quality Incentives Program (EQIP) for organic agriculture. The program is administered by the Natural Resources Conservation Service (NRCS) as the EQIP Organic Initiative. For organic farmers and farmers transitioning to organic production, this funding can help pay to implement resource conserving practices.

In 2010, Idaho NRCS was allocated \$798,000 for the program. This year, Idaho NRCS funded 14 contracts totaling \$337,400.

Nationwide, half of the \$50 million designated for the EQIP Organic Initiative was used by organic farmers in 2010.

The kinds of projects that were funded in Idaho help conserve natural resources in some way. Projects included the following:

- Conversion to more efficient irrigation systems, which saved both water and energy.
- Installation of livestock watering facilities, cross fencing for rotational grazing and fencing around riparian areas.

continued on page 2



Managing Smut on Wheat and Barley

Oliver T. Neher

University of Idaho

In the past growing season, some organic growers experienced problems with loose smut on wheat and false loose smut on barley. Infected seed kept from the previous year and wetter conditions likely led to the problems.

Wheat Smut

Loose smut, caused by the fungus *Ustilago tritici*, will appear between heading and maturity with diseased wheat heads emerging earlier than healthy ones.



Photo credit: Oliver Neher



Before heading, infected plants may have darker green, erect leaves and sometimes with chlorotic streaks. The smutted heads are very distinctive from green, healthy heads, since the kernels are replaced by a dry olive-black spore mass. This spore mass is initially confined by a thin, grey membrane which then ruptures and releases the wind-dispersed spores, leaving a bare rachis behind (thus the term “loose” smut).

continued on page 2

- Planting of pea and vetch cover crops to improve soil quality and fertility.
- Development of integrated pest management plans.

Even though some producers took advantage of this special funding, NRCS found that our programs don't adequately address organic production methods and the needs of smaller operations. In May, we met with organic producers to determine how to make the program more suitable.

As a result, we adapted several standard practices to make them more appropriate for organic producers and small acreage farms for the 2011 EQIP Organic Initiative. Organic producers can now seek funding for the following:

- **Installing compost facilities**
- **Installing seasonal high tunnels (hoop houses)**
- **Applying vegetative or fabric mulches**
- **Improving grazing land through mechanical treatments that aerate pastures**
- **Recouping organic seed costs for cover crops**

Detailed information about these practices is still being developed.

Additionally, we found that some producers are not familiar with how NRCS administers its programs. Basically, if an application is approved, the producer works with NRCS staff to develop a plan to accomplish the work outlined in the application. That plan becomes part of a contractual agreement between the producer and NRCS. To receive payments from NRCS, the producer must perform the work outlined in the plan/contract.

Applications for EQIP Organic Initiative are taken year round; however, the cutoff date for ranking fiscal year 2011 applications has not been set.

More information will be available on the Idaho NRCS website (www.id.nrcs.usda.gov) in November. If you have any questions, contact Clint Evans or Dee Carlson in the NRCS State Office at (208) 378-5700. ❖

Idaho NRCS Advisory Meeting

The next Idaho NRCS State Technical Advisory Committee meeting will be held in early November at the state office.

NRCS reviews implementation of the programs from the past year and takes recommendations for the future.

This is a public meeting and producers are encouraged to attend. Individuals can also seek formal membership by submitting a request to the State Conservationist.

NCAP will send an email notification when the meeting date is set. If you would like to provide input, but cannot attend, please contact Jen Miller at NCAP (jmiller@pesticide.org or 208-850-6504) or send your input directly to the assistant state conservationist at Clinton.Evans@id.usda.gov. ❖

Spores of loose smut will infect a healthy wheat plant only during flowering. During periods of dew or light rain associated with temperatures between 61 to 72°F, the spores will then germinate and infect the embryo. Until the next growing season, loose smut will survive as dormant mycelium inside the infected seed.

Barley Smut

In comparison, barley heads infected with false loose smut, caused by the fungus *Ustilago nigra*, will emerge the same time as healthy ones.

False loose smut will survive as spores on or immediately under the hull of contaminated seed and infects the emerging seedling after planting. The infection is favored by soil temperatures ranging from 59 to 70°F under low soil moisture conditions. Spores of false loose smut are incapable of infecting barley at the floral stage. The mycelium grows within the growing plant and invades the floral tissue where it produces masses of dark brown spores. Spores of false loose smut are primarily disseminated by wind.



Photo credit: Beth Rasgorshek

Organic Disease Management

The control measures for organic producers are mainly focused on planting certified disease-free seed and cultivars that are resistant to smuts and/or have unexposed stigmas or florets, which open only for a short period of time.

If retained seed was harvested from infected fields and is suspected to be contaminated with loose smut, the seed-borne inoculum can be controlled by hot-water, solar-heat or dry-heat treatments.

It is advised to test all heat-treated seed for germinability, since excessive heat could reduce germination rate and seed vigor. Harvest and planting equipment and grain bins should be sanitized to reduce the spread of false loose smut spores and to avoid the contamination of disease-free seed stock.

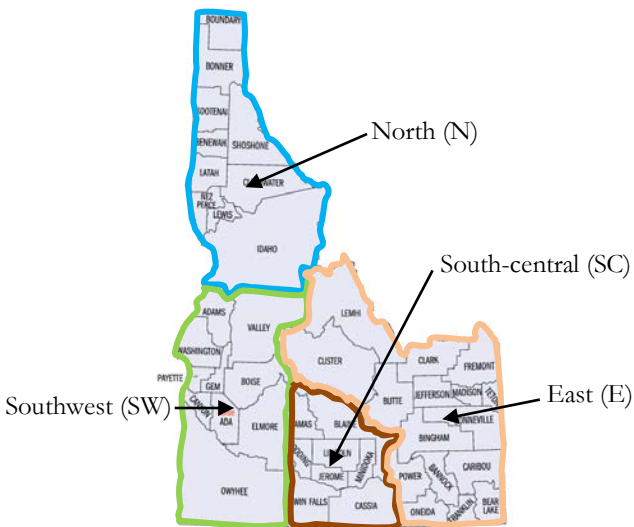
Contact Oliver Neher with the University of Idaho at oneher@uidaho.edu, if you have questions. ❖

Regional Differences in Idaho Organic Farms

The Northwest Coalition for Alternatives to Pesticides (NCAP) and Washington State University conducted a survey of certified organic producers in Idaho from October to December 2009.

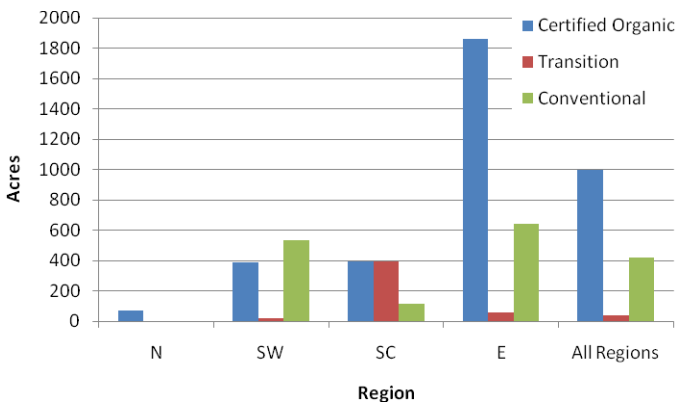
Here are the results highlighting regional differences in the products produced, marketing avenues and experiences of Idaho's certified organic farmers.

Respondents were assigned to one of the following four regions: north, southwest, south-central, or east.



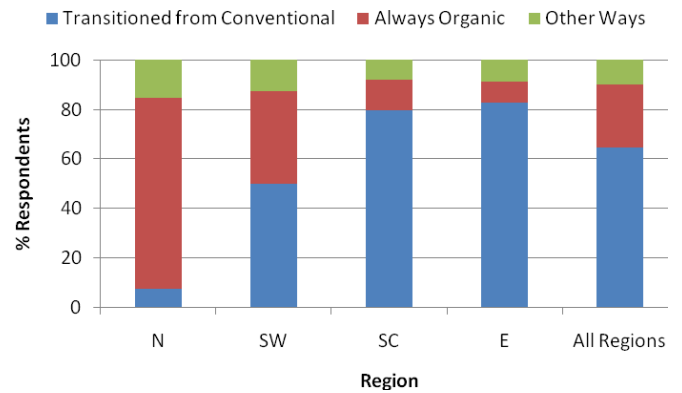
Results showing regional differences represent a total of 103 respondents. The regional makeup consisted of the following: 13 respondents in the north (N); 22 in the southwest (SW); 46 in south-central (SC); and 22 in the east (E).

Figure 1. Average certified organic, transition, and conventional acreage of respondents in 2009.



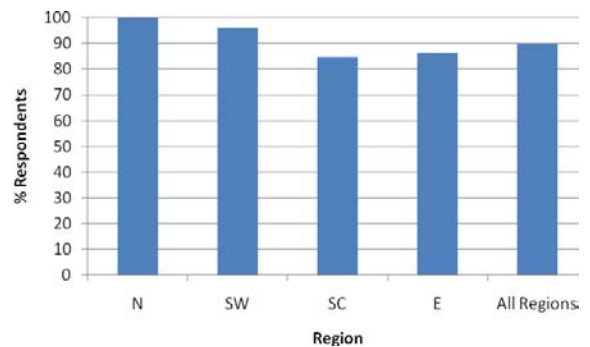
On average, the farms in east Idaho had the most certified organic acres and farms in south-central Idaho had the most acres in transition to certified organic production (Figure 1).

Figure 2. How respondents began farming organically.



Most (77%) of the certified organic farmer respondents in north Idaho have always farmed organically, as compared to the other regions (Figure 2.) Eighty percent or more of the respondents in south-central and east Idaho transitioned from conventional to organic. The other ways respondents became certified organic included going from Conservation Reserve Program (CRP) land directly to organic, purchasing an organic farm and having used organic methods, but not becoming certified from the start.

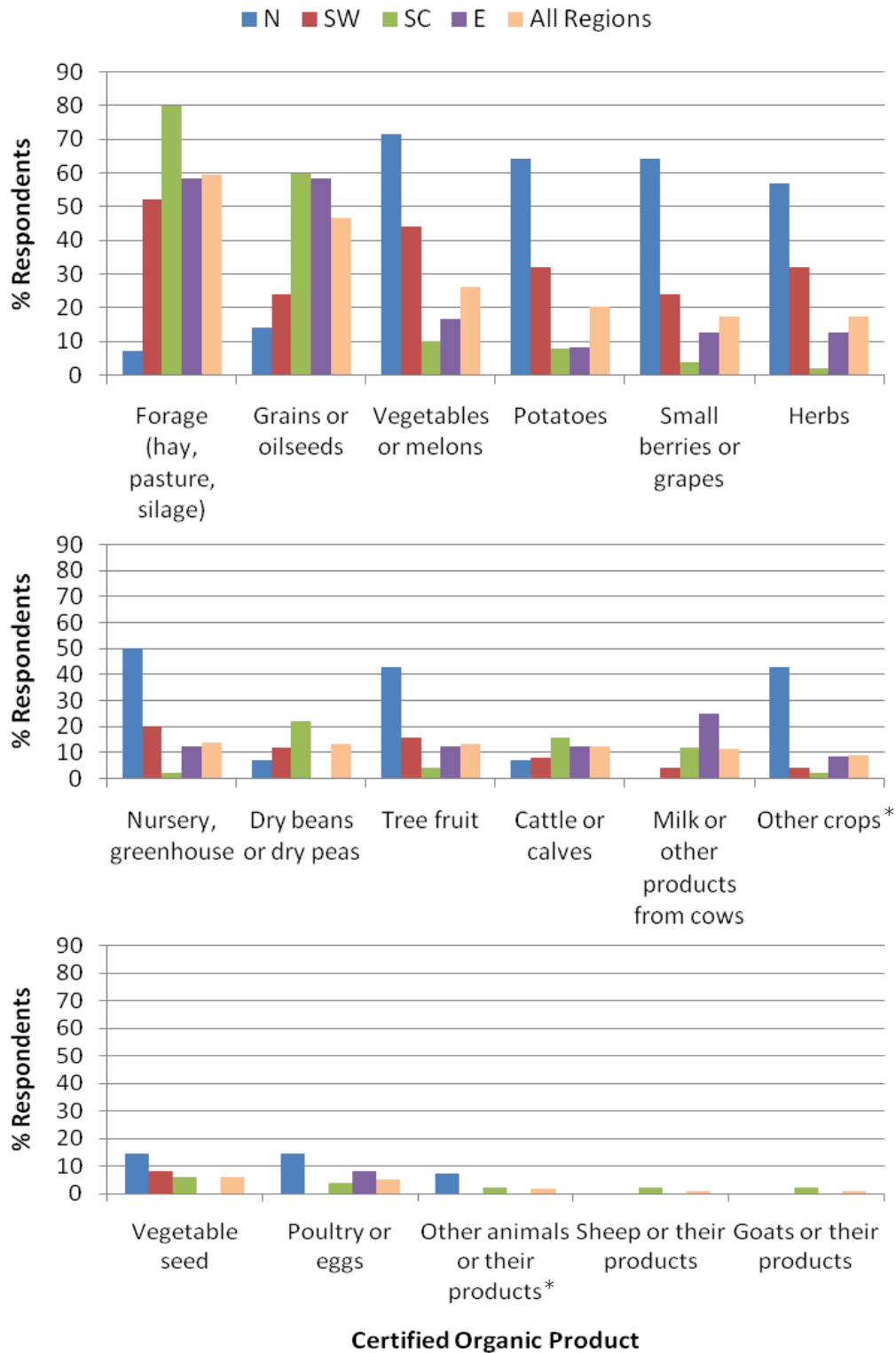
Figure 3. Percentage of respondents planning to maintain organic certification for next five years.



Overall, 90% of certified organic respondents in Idaho plan to maintain organic certification for the next five years (Figure 3). On a regional basis, all respondents in north Idaho, 96% in southwest Idaho, 86% in east Idaho and 85% in south-central Idaho plan to maintain certification.

continued on page 4

Figure 4. Percentage of respondents growing or raising selected certified organic products in 2009.



Respondents produced a diversity of organically certified products during 2009. Overall, the most common products included forage (60% of farms); grains and oilseeds (47%); and vegetables and melons (26%) (Figure 4). Forages were produced by 50% or more of respondents in all regions, except the north. Grains or oilseeds were produced by nearly 60% of respondents in south-central and east Idaho. More than 50% of the respondents in north Idaho produced vegetables and melons, potatoes, small berries or grapes, herbs and nursery plants. A quarter of the respondents in east Idaho produced milk or other products from cows.

* Other crops and animals included: mushrooms, hops, garlic and buffalo.

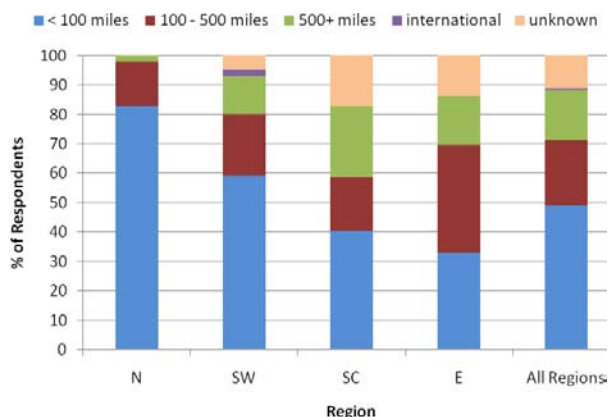
continued on page 5

Figure 5. Percentage of respondents using direct-to-consumer, direct-to-retail, and wholesale marketing channels for certified organic products in 2009.



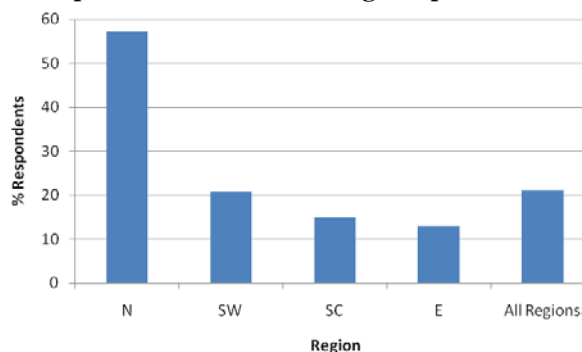
All respondents in north Idaho sold direct to consumer and direct to retail, while only 30% sold through wholesale channels (Figure 5). In contrast, more of the respondents in south-central and east Idaho sold through wholesale than direct to consumer or direct to retail marketing channels.

Figure 6. Percentage of certified organic products marketed to consumers living in different geographic areas in 2009.



More than 80% of respondents in north Idaho sold to consumers living within 100 miles, in contrast to just a third in east Idaho. Eighty percent or more of respondents in south-central, east and southwest Idaho marketed to consumers living with 500 miles.

Figure 7. Percentage of respondents producing value-added products from certified organic products in 2009.



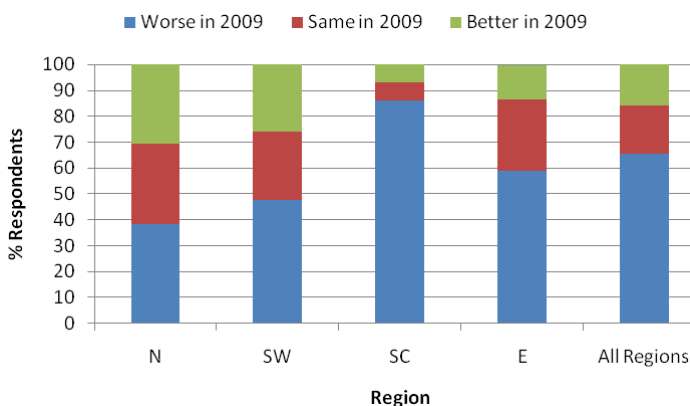
The majority (57%) of respondents in north Idaho made a value-added product from their certified organic products. In comparison, only 21% of respondents in the southwest, 15% in south-central and 13% in east Idaho produced value-added products. Value-added products included jams, flour, dried/canned tomatoes, livestock feed, herb jelly, bottled milk, fruit pies, salad mix, dried herbs, salves, garlic braids, vinegar and frozen potatoes.

Figure 8. Market demand experienced by respondents in 2009 as compared to previous three years.



The majority of respondents in south-central (80%), east (73%) and southwest (59%) Idaho found that market demand for certified organic products was worse in 2009 than the previous three years (Figure 8). Twenty-three percent of respondents in southwest Idaho found that demand was greater in 2009. Almost half of respondents in north Idaho found demand in 2009 to be similar to recent years.

Figure 9. Prices experienced by respondents in 2009 as compared to previous three years.



Prices experienced by respondents in 2009 as compared to the previous three years showed a similar trend to market demand. The largest percentage of respondents in each region reported that prices were worse in 2009, with 86% of respondents in the case of south-central Idaho. Twenty-six percent and 30% of respondents in north and southwest Idaho, respectively, found prices to be better. The same percentage of respondents in those two regions reported that prices were the same in 2009 as the previous three years.

Additional survey results are available at www.pesticide.org. ❖

Organic Field Days Held

You never know what you may see or learn during a field day visit. This summer, two visitors leaped at the chance to demonstrate Sweet Valley Organics' vegetable transplanter and another guest jumped on the bicycle-powered salad spinner at LadyBird Farms.



From cover crops to hula hoes, NCAP's 2010 field day series featured some of the diversity of southern Idaho's organic farms.

2010 host farmers included the following:

Mike Heath & Al Peralta of M&M Heath Farms, Buhl
450 acres of hay, grain, dry beans, potatoes, squash,
other vegetables and livestock

Jessica McAleese, Jeremy Shreve, & Chelsey Robison of
LadyBird Farms, Pocatello
1-acre CSA farm with greenhouses for season extension

Pat Lozier of Lozier Farms, Soda Springs
150 acres of hay, potatoes, oats and cover crops

Chris Florence, Chance Morgan, & Geoff Neyman of
Sweet Valley Organics, Sweet
6-acre vegetable farm with geothermal greenhouse

These host farmers shared their successes and challenges to help build a stronger organic farming community in Idaho. Their spirit of cooperation and giving was greatly appreciated by all visitors.

In addition to new and experienced organic farmers and market gardeners, several University of Idaho and Natural Resources Conservation Service staff joined the tours. The field days also provide an opportunity for state and federal agency partners to see and learn more about organic farming practices.

It is time to start thinking about that specialty piece of equipment or production method you would like to share during NCAP's 2011 field day series. Maybe there is a farm you would like to visit next summer. Contact Jen Miller at jmiller@pesticide.org or (208) 850-6504 with your suggestions.

So for the new and experienced, alike, our field days take some the mystery out of organic farming and provide in-field lessons in how to deal with organic crop rotations, pest and weed management and, yes, even how to spin salad with your bike. ❖

Insurance Program Changes for Organic Crops

The 2008 Farm Bill required USDA Risk Management Agency (RMA) to review its insuring practices for organic crops. As a result of the initial analysis, RMA recently announced surcharge and price election changes.

The five percent surcharge that is currently imposed on producers of the following crops has been removed: figs, nursery plants, pears, peppers, prunes, macadamia trees, Florida citrus fruit, Texas citrus fruit, Florida fruit trees and Texas citrus trees.

In addition, the agency will offer an organic price election in 2011 for cotton, corn, soybeans and processing tomatoes.

While these changes likely do not affect organic producers in Idaho, the announcement by RMA indicated that additional changes will follow.

The review that was conducted for RMA indicated that there was little cause for special requirements of organic producers. The available data, however, were limited and highly variable.

"The results of the underwriting analysis do not provide sufficient statistical evidence that organic and conventional production methods result in significant, consistent, and systemic differences in insurance experience," states Watts and Associates, Inc., the firm contracted by RMA to conduct the analysis.

The reports are now available at www.rma.usda.gov/pubs.

"USDA is working to provide producers of organic crops with improved opportunities and resources," said Agriculture Secretary Tom Vilsack. "We are taking aggressive action to improve delivery of our programs, with impressive results for our customers. The release of these reports and RMA's announcement of the price election mark another step in that continuing effort." ❖

Biocontrol of Early Blight in Organic Potatoes

Oliver T. Neher
University of Idaho

NCAP partnered with Oliver T. Neher with the University of Idaho at Kimberly, ID and Montana Microbial Products to test the use of Organic Materials Review Institute (OMRI) listed microbial products for the biological control of early blight (*Alternaria solani*) on potatoes.

Methods

In collaboration with a local organic grower, small plot trials were established to test *Bacillus mycooides* isolate BmJ, Serenade Max (*Bacillus subtilis* QST 713), M-Pede (potassium salts of fatty acids) and Actinovate AG (*Streptomyces lydicus*).

Products were applied starting July 10th with row closure and were repeated two times in two week intervals. Infection with early blight was first observed around the second application and progressed very slowly.

Microbial products

It is very important to apply microbial products like BmJ, Serenade, or Actinovate before disease onset. This enables the microorganisms to establish themselves and to occupy wounds, produce antimicrobial compounds or to stimulate the plant defense system. Some products that are able to stimulate the plant defense system have the potential to protect the plant against a multitude of viral, bacterial and fungal pathogens.

Soap salts

Potassium salts of fatty acids (M-Pede), commonly called soap salts, are mainly used as insecticides where the product penetrates and disrupts the insect's cells and consequently leads to dehydration and death. Certain soap salts also express fungicidal activity and products with multiple activities (insecticide and fungicide) could be beneficial to

organic growers, since one application would protect potato plants against thrips, spider mites, white flies, aphids, etc., as well as against fungal pathogens.

Results

At the second early blight rating, all tested products were able to slow down the development of the disease, with Actinovate AG and *B. mycooides* BmJ expressing the lowest disease ratings (Table 1).

At the last rating, an overall reduction of early blight lesions by 58% was achieved with use of the products. M-Pede showed a 65.4% reduction followed by *B. mycooides* BmJ (0.88 oz/A) with 63.4%. However, none of the treatments were significantly different from each other when compared to the untreated control. There was also no significant difference between the individual treatments when compared over time (AUDPC), but M-Pede and *B. mycooides* BmJ (2.64 oz/A) were able to reduce early blight lesions by 63.4% and 62% respectively.

Yield data were not collected, since disease was not severe enough and a negative effect on yield was not expected.

A drawback for the use of M-Pede is the missing label for early blight. M-Pede is only labeled for the use against insects and powdery mildew on field crops. Results are promising, but the trial needs to be repeated to get more reliable data.

+ + + + + + + + + +

This work was supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 68-0211-8-155, and American Farmland Trust/EPA.

ALWAYS read and follow the instructions printed on the pesticide label. The recommendations in this article do not substitute for pesticide label instructions. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets and livestock.

Trade Names--To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned. ❖

Table 1: Early blight ratings for individual treatments expressed as percent leaf area covered with fungal lesions.

Treatments	rate/A	1. rating	2. rating	3. rating	4. rating	5. rating	AUDPC ^z
Untreated control		0	2.61 a ^y	5.17 a	25.41 a	60.25 a	583.65 a
<i>B. mycooides</i> BmJ	0.88 oz	0	1.06 b	3.62 b	9.82 bc	22.02 b	247.77 b
	2.64 oz	0	0.86 bc	3.10 bc	12.17 b	29.47 b	284.63 b
Serenade Max	3 lb	0	0.62 c	2.01 d	9.41 bc	25.87 b	222.59 b
M-Pede	3 lb	0	0.76 bc	2.60 bcd	9.50 bc	23.81 b	228.81 b
M-Pede	2% v/v	0	0.81 bc	2.74 bcd	8.66 c	20.85 b	213.63 b
Actinovate AG	9 oz	0	0.57 c	1.62 d	9.42 bc	29.25 b	226.00 b
LSD _(0.05)		NA	0.31	1.15	3.23	8.75	149.39
P > F ^x		NA	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0006

^z AUDPC = Area under disease progress curve is a quantitative summary of disease intensity over time. It was calculated based on five individual ratings using the formula $\sum [(i + j) / 2 * (\text{day } j - \text{day } i)] + [(j + k) / 2 * (\text{day } k - \text{day } j)]$

^y Means followed by the same letter were not significantly different based on Fisher's protected least significant difference (P=0.05)

^x Pr > F was the probability associated with the F value. LSD = Fisher's protected least significant difference value.

NCAP ORGANIC EVENTS

December 7 – 8, 2010

Organic Markets Workshop, Twin Falls

February 4 – 5, 2011

2nd Annual Grower's Own Conference (Farmer-to-Farmer Networking), Twin Falls

March 2011

Launch of East Idaho Grower's Own Conference

**To ensure event notification,
send your email address to Jen Miller at
jmiller@pesticide.org or call (208) 850-6504.**

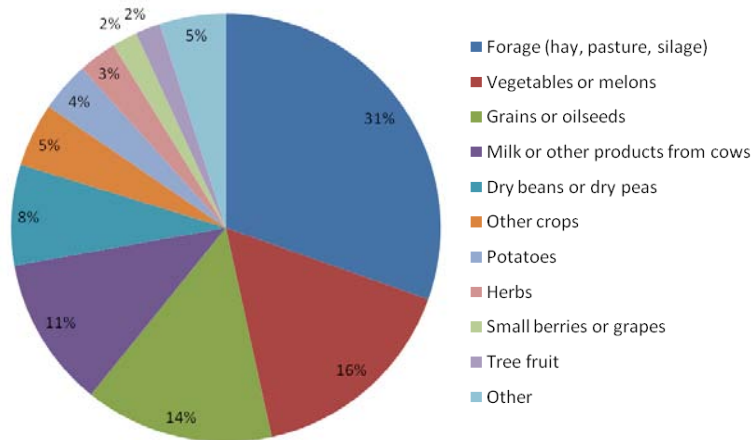
Funding for this newsletter is provided in part by
USDA Risk Management Agency.



Jennifer Miller
Northwest Coalition for Alternatives to Pesticides
5902 Brian Way
Boise, ID 83716

(208) 850-6504
WEB: www.pesticide.org
EMAIL: jmiller@pesticide.org

Certified organic products representing the largest portion of gross organic farm income in Idaho in 2009.



Inside this newsletter on page 3, find more results from a survey of Idaho's certified organic farmers, conducted by the Northwest Coalition for Alternatives to Pesticides and Washington State University in the fall of 2009.

Respondents reported that forage (31%), vegetables or melons (16%), grains or oilseeds (14%) and milk or other products from cows (11%) comprised nearly three-quarters (72%) of the gross organic farm income in 2009. The other category includes nursery, vegetable seed, cattle, sheep and other animals.

NONPROFIT
ORG
US POSTAGE
PAID
Pocatello, ID
PERMIT NO. 51