

## Rutgers Cooperative Extension of Mercer County

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# Mercer County Grower



Spring 2012 Volume 2, Issue 2

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## Farm Worker Health and Hygiene

Meredith Melendez, Senior Program Coordinator RCE Mercer County

Farm audit or not, farm worker health and hygiene should be a top priority for all farms. It is the responsibility of farm management to educate its employees about health and hygiene on the farm, and explain why farm worker health and hygiene is important. Without emphasis on why health and hygiene are important employees may think you are “overdoing it” in terms of hand washing and cleanliness requests and prompts.

Training is the first step in ensuring health and hygiene with employees. A great 15 minute training CD by Cornell titled “Fruits, Vegetables, and Food Safety: Health and Hygiene on the Farm, is available through the Cumberland County Extension Office (856-451-2800) for \$20. This training video, offered in English and Spanish, goes through the how's and why's of the most common contamination points.

One of the main route of contamination of farm products is the fecal-hand-oral route of contamination. Breaking this chain of contamination is critical for food safety on your farm, as we are all potential carriers of contaminants. It is also possible to be a carrier of a pathogen before symptoms appear and after we are feeling well again.

### Proper hand washing

Farm workers should be washing their hands properly at the start of the shift, after using the bathroom, after using a

tissue, after smoking, after eating, after drinking, after breaks and any other time contamination of their hands is possible. Proper hand washing is: wet the hands with microbially safe water, apply soap, rub hands vigorously together causing friction for twenty seconds, rinse the hands and dry with a single use paper towel. Hands should not be dried on clothing.

You may want to consider a jewelry policy for the farm. Jewelry can harbor bacteria and other pathogens making them difficult to remove during the hand washing process. Watches can pose a glass hazard.

Hand washing stations should be outside of the restroom. Studies have shown that workers are more likely to wash their hands when wash stations are in view of other employees and management. External wash stations can be rented along with your port-a-pots, permanently installed, or you can make low cost portable stations.

### Proper toilet use

Restrooms should be cleaned regularly, minimally weekly. Fresh toilet paper should always be available. Restrooms should be regularly checked to ensure workers are placing used toilet tissue into the toilet. Proper signage should be used and is available in multiple languages.

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# The Marketing Mix – The Four Ps of Marketing

## Part 4: Promotion

Brian Shilling, Extension Specialist, Jenny Carleo, Agriculture Agent, Steven Komar, Agriculture Agent

John D. Rockefeller once said that “next to doing the right think, the most important thing is to let people know you are doing the right thing.” These are wise words to live by as you attempt to make your farm an agritourism destination. To be successful, an agritourism operator needs to constantly think of creative ideas for directing customer traffic to the farm and encouraging repeat visitation. The challenge lies in finding the most effective and cost efficient strategies for reaching your desired market.

1. Developing the appropriate mix of advertising and promotion may require some degree of trial and error. Evaluate the effectiveness of various advertising options (see Table 1) to see which work best for your farm.

2. Strive to establish brand recognition of your farm by displaying your farm name or logo on apparel, bags, give-aways (e.g., reusable bags, pens, refrigerator magnets, etc.).

3. Have a presence in the communities from which you seek to draw customers. Strategically participate in off-farm events to raise awareness of your agritourism operation (for example, community farmers’ markets, local festivals, county fairs, etc.).

4. Get online! There is a well-placed belief in the conventional wisdom that word of mouth is the best form of advertising. While personal testimonies are invaluable for expanding awareness and appreciation of your business, a study in Pennsylvania found that word of mouth ranked only fifth among agritourism visitors in terms of resources used in trip planning. Welcome to the new age of marketing: websites were identified as the most frequently used resource for identifying potential farm destinations.

5. Consider using social media (examples include Facebook and Twitter), which are increasingly popular tools being used effectively to promote agritourism. Also, maintain e-mail lists of customers to inexpensively announce product availability or special events and promotions.

### Timing is Everything!

All products have a product life cycle comprising five stages: development, introduction, growth, maturity, and decline. Your marketing success will depend upon tailoring your marketing mix appropriately to the life stage of your product. Is it a new product? Is it well established within your operation or the broader market? Is

it an older product with declining sales?

As previously noted, when a product is first introduced you may choose a skim pricing strategy to quickly generate higher returns if little competition exists or, alternatively, adopt a market penetration strategy if you believe the slow and steady development of a customer base is a more feasible option. During the growth stage of your business, sales are rising. You may invest in refining existing products based upon customer feedback or changes you observe in the market. Growth in the number of competitors seeking to share in your successes and focus on building expanded brand recognition. Product pricing may be maintained or adjusted (up or down) based upon market demand and competition.

As your product reaches maturity, revenues will eventually peak. It is likely that your successful ideas have drawn competitors, so protecting your market share may become a focal point for your marketing efforts. You may find it advantageous to lower advertising costs and focus on satisfying existing loyal customers. You may decide to make further product refinements (or develop new products) that differentiate you from competitors.

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## Examples of Advertising and Promotion Options

Print media (newspapers, magazines)  
Press releases  
Radio or television  
Yellow pages  
Farm website  
State or county promotional websites  
Farm visits directories

State Departments of Agriculture  
State Farm Bureaus  
Road signage and billboards  
Direct-to-consumer mailings  
Brochures  
Hosting community events

Customer email lists  
Participation in farmers markets  
Participation in county fairs  
Cross promotions  
Social networking tools  
Travel and tourism sites

# What's New

## Rutgers Online Publications

### **Plant and Pest Advisory**

The Rutgers Plant and Pest Advisory is now available. Editions available for NJ Growers:

Vegetable Crops (weekly)

Fruit Edition (weekly)

Landscape, Nursery & Turf (biweekly)

Cranberry (biweekly)

Subscription forms are available at the Rutgers Cooperative Extension office and online at: <http://njaes.rutgers.edu/pubs/plantandpestadvisory>

### **Rutgers Vegetable Crops Blog**

Up-to-date information posted by agriculture agents and Extension Specialists. Receive updates via email! This is the quickest way to receive information that is crucial.

<http://jerseyvegupdates.blogspot.com>

The Ag Updates blog for field and forage crops can be accessed at:

<http://fieldforagecropsnutrientmanagement.blogspot.com/>

### **Rutgers Agritourism Website**

A comprehensive website supporting farmers, ag educators, policy planners, and farm visitors.

Checklists, business planning tools, Right-to-Farm, Accepted Management Practices and more can be found at:

<http://njsustainingfarms.rutgers.edu/agritourismwp/agritourismSitemap.html>

## 2012 Vegetable Recommendation Guide

The 2012 Vegetable Recommendations Guide is now available at the Rutgers NJAES Cooperative Extension office Of Mercer County at 930 Spruce Street.

## 2012 Atlantic City Proceedings Now Available Online!

The 2012 proceedings are available at the Veg Crops On-Line Resource Center homepage at: <http://njveg.rutgers.edu>

These proceedings are a great reference to have on hand. Thanks to Wes Kline and Michelle Infante-Cassella for organizing them each year.

## Notification System Available for Tomato and Potato Growers

Sign-up for the NEWA disease forecasting reports at the Veg Crops On-Line Resource Center homepage:

<http://njveg.rutgers.edu>



## Beekeeper Alert (Cultivating Cumberland Newsletter)

New Jersey law (NJ Pesticide Control regulations at NJAC 7:30-9.11, pages 10-12) requires that beekeepers be notified when pesticides that are labeled as hazardous to bees are applied within three miles of a registered bee yard.

Agricultural pesticide applications are exempt from this notification, with the exception of the following crops within the dates indicated or when in the flowering stage:

Apples - April 15-May 15

Strawberries - April 15 – May 15

Blueberries - April 15 – May 15

Holly - June 1 – June 30

Sweet Corn - Flowering Stage

Pears - April 15 – May 15

Peaches - April 15 – May 15

Cranberries - June 15 – August 15

Vine Crops (cucurbits) - June 1 – August 31

Cover crop or weeds - Flowering Stage

## SADC Land Leases and Beginning Farmers

(NJ Farm Bureau "This Week in Farm Bureau" Vol. XLVIV No. 7)

The SADC has started a new project with grant funding to develop model land leases and contracts for both farmers and landowners. It will also support the ability of beginning farmers to gain access to farmland. After a research and data gathering phase, the end project will be a guidebook with recommendations on farmland leases. Dave Kimmel at the SADC can be reached at: 609 984 2504.



# Know the Cost Per Pound of Nutrients in Organic Fertilizers

Tianna Dupont, Educator Sustainable Agriculture

Penn State Cooperative Extension, Northampton and Lehigh Counties

A recent article by Vernon Grubinger, Vermont Extension, made me think to remind folks to price compare their organic nutrients. Below are a couple of thoughts from Dr. Grubinger and some price per pound comparisons from sources I know of locally.

There are many more sources out there. The point is – Price It Out!

Dr. Grubinger points out that if your soil test indicates that a field has adequate phosphorus (P) and potassium (K), they you should avoid blended fertilizers and only use those that are high in nitrogen (N) content. But if you need multiple nutrients i.e., N-P-K, then a blended fertilizer is usually a better deal.

A lot of fields where you have been using manure or compost are high in P and K. In that case, you are mostly looking for nitrogen and so that makes the math easy. For example, an 8-1-1 at \$19.50 for a 50 pound bag would be \$4.80 a pound of nitrogen. A 5-1-1 at \$19.50 per 50 pound bag would be \$7.80 per pound of nitrogen. Bloodmeal (13-0-0) at \$53 per 50 pound bag would be \$8.80 per pound of N.

Feathermeal (13-0-0) at \$32.25 would be \$4.96 per pound of N. Composted poultry manure pellets (6-2-2) at \$8.75 per 50 pound bag would give you nitrogen at \$2.92 per pound of N. Keep in mind that the price per pound should not be the only consideration. Some of the single nutrient products might be hard to spread, due to their texture, with a tractor-mounted spreader.

If you are confused, remember that the numbers on a fertilizer bag or



The Rutgers Soil Testing Lab

analysis mean the percent N-P-K in the product/substance. For example Bloodmeal (13-0-0) has a guaranteed analysis of 13% nitrogen (13 pounds per 100 pounds of product). If it is a 50 pound bag there are only 7.5 pounds of nitrogen in that bag.

Other fields are high in P, but need both N and K. So custom mixes make sense. Grubinger talks about a custom 6-0-6; at \$25 per 50 pounds the cost is \$8.33 per pound of N or K. Alfalfa meal 2.6-0-2.3 at \$21 per bag has a N cost of \$16.15 per pound at K at \$18.26 per pound. I have not see those available around here. The Natural No Phos 4-0-4 at \$17 per 50 pound bag would be \$8.50 per pound of N or K.

If you only need K, then potassium sulfate 0-0-51 is the best deal; \$51 per bag equals K at \$2 a pound. Sul-po-mag 0-0-21 at \$31 per bag has K at \$2.95 per pound, but it also supplies magnesium (Mg), so if that is low and you will not be liming with high mag lime, it may be a better choice.

Keep in mind that nutrient availability varies among organic fertilizers. For example, 50 pounds

of greensand 0-1-7 at \$11.50 has a price per pound of K of \$3.30, but most of this will not be available to plants in the short term.

I generally cost out a couple of different sources and combinations for what is recommended by the soil test for a field. Sometimes it is easier to think about the cost per bed instead of per acre. Either way, take a couple of recommendations into

consideration, do the math and if it conflicts with a recommendation ask them why. There might be a difference in the product, like release rate, that you have not thought about.

Of course this article only refers to granular organic nutrient sources. Most of us are also using compost, manure and/or cover crops. Make sure you take the nutrient contributions from these sources into consideration.

The Rutgers Soil Testing laboratory can offer organic recommendations. The fertilizer finder can help you determine appropriate fertilizers to use by plugging in the recommended ratio (such as 10-10-10). There is an organic check box so that only organic recommendations are given. You can access this site at:

<http://rci.rutgers.edu/~soilslab/FertProducts/>

Lowering prices to reflect costs savings arising from a mature market position may also be a reasonable option; however, be mindful that no one wants to win the proverbial race to the bottom.

Decline is generally an inevitable stage of any product life cycle. Sales may not abruptly end, but they will tend to fall as more interesting alternatives draw customers' attention. You may begin reducing your advertising budget and coast along based upon existing customer volume.

At a certain point, a product may become unprofitable and its planned withdrawal or replacement with another product will be your most economical choice.

### Conclusion

Agritourism is an expanding market opportunity for agricultural entrepreneurs in many parts of the U.S. However, the development of a successful agritourism operation requires a keen focus on marketing the farm as a travel destination attractive to

customers on the basis of farm products and services, hospitality, and experiences. This fact sheet Summarizes the basic principles of good marketing: the need to clearly understand and define the products being offered on your farm, approaches for developing appropriate pricing, the formulation of product placement strategies, and promotion.

This fact sheet, in its entirety, can be found online at:

<http://njaes.rutgers.edu/pubs/publication.asp?pid=E337>

### Proper glove use

Should you require workers to use gloves they should be trained on how to use them. Disposable gloves should be thrown away once they are ripped or contaminated. Reusable gloves should be cleaned any time they come into contact with a contaminant. Gloves should be washed as frequently, and in the same situations, as hands. If an employee has a cut or abrasion on their hand the injury should be cleaned, bandaged, and covered with a glove. First aid kits should be available in the packing house and in field vehicles so that workers can properly bandage and cover their wounds.

### Proper consumption of water

Water should be provided to employees in the packing house, fields, and other work locations. Single use cups should be provided multiple use cups can harbor contaminants. Trash receptacles should be provided for these cups. Glass bottles should not be permitted in the work areas. According to FDA audit regulations water bottles can be allowed on the



packing line, but must be kept below the line. Other beverages and foods are not allowed on the line and should be consumed in designated break areas located away from any product packing and storage areas.

### Blood and bodily fluid

Should a product come in contact with blood or bodily fluid it should be removed from the field or packing area, sealed in a bag and destroyed. Any surfaces that come in contact with blood and bodily fluid should be sanitized with a

chlorine solution. Employees should be trained that it is unacceptable to urinate, defecate or spit in any growing areas.

### Ill employees

Ill employees should be encouraged to tell you if they are experiencing symptoms of illness. They should know that if they are ill they may still come to work, but will be given tasks that keep them away from the product. It has been shown that workers who believe they are ill, but do not want to miss out on wages, will not disclose their illness therefore making them a contamination risk.

Farm workers play a key role in ensuring safe fruits and vegetables. Educating your workers about food safety on the farm is well worth the time and effort it takes. For more information please email me at: [melendez@njaes.rutgers.edu](mailto:melendez@njaes.rutgers.edu) or call 609-989-6830 An excellent online resource for food safety on the farm is through Cornell at: <http://www.gaps.cornell.edu/> Fact sheets, updates and online courses are available.



Oilseed radish in full bloom March 2012  
RAREC High Tunnels

## **Mercer County** *Grower*

The Mercer County Grower Newsletter provides local information from Rutgers Cooperative Extension and collaborating organizations which represent the diverse nature of agriculture within Mercer County. To receive this newsletter via email please contact Meredith Melendez at: [melendez@njaes.rutgers.edu](mailto:melendez@njaes.rutgers.edu)

Rutgers Cooperative Extension of Mercer County welcomes this opportunity to send you this newsletter for your information and use. Please send all inquires to the editor.

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