Any people grow or purchase organic foods to support more ecologically sustainable farming and gardening practices and to reduce their exposure to pesticides. **Now there is convincing evidence that organic fruits and vegetables contain greater amounts of micronutrients that can have a direct impact on our health.** These nutrients include not only the familiar vitamins and minerals, but also numerous plant secondary metabolites or phytochemicals, most of which appear to be biologically active in our bodies. Plants synthesize phytochemicals as a means to attract pollinators, repel pests and protect themselves from sunlight and other types of environmental stress. It is these phytochemicals that give fruits, herbs and vegetables their particular taste, flavor, color and, in some cases, medicinal properties. Plants make thousands of different phytochemicals and it is likely many more will be discovered as research continues. Intensive conventional agricultural practices may disrupt the production of phytochemicals in plants (1).

It is well established that a diet rich in a variety of fruits and vegetables offers protection from many common diseases, including cancer, heart disease, stroke, and diabetes (2,3). Since plant foods are our primary dietary sources of micronutrients (vitamins, minerals, and phytochemicals), current thinking has it that it is these phyto-nutrients that give plant foods their health benefits. Thus the micronutrient density of fruits and vegetables is important for disease prevention and this topic is currently receiving a lot of attention from researchers. Organic agriculture’s “feed the soil” philosophy may be important in helping us to eat a more healthful diet. Recent data appears to validate the basic premise that organic agricultural management creates a healthy soil ecosystem that then supports the growth of healthy, nutrient dense and palatable crops. In contrast, the nutrient density of conventional crops has been decreasing over the last several decades (4).

Several studies have reported higher nutrient densities for organically grown produce in comparison to conventional. A ten-year long University of California study found significantly higher levels of two flavonoid phytochemicals (quercetin and kaempferol), vitamin C and sugars in organically grown tomatoes compared to those grown under conventional methods (5). Flavonoids have anti-oxidant and anti-inflammatory properties and there is evidence that they protect against diseases in which inflammation is known to play a role – cardiovascular disease, cancer, asthma and diabetes. A 2010 study compared the nutrient content of organic and conventional strawberries. The organic berries had higher antioxidant activity (many phytonutrients have anti-oxidant properties) and higher concentrations of vitamin C and flavonoid compounds. In taste tests the organic berries were preferred due to both taste (sweeter) and appearance (6). Similar results have been reported for blueberries, citrus, apples, plums, peaches, pears, potatoes and corn – all the organically grown crops had higher content of various phytonutrients and anti-oxidants (7). Anti-oxidants are important in that they protect our cells and genetic material from damage by ubiquitous free radical compounds. (Continued on Pg 2)
So why do organic fruits and vegetables contain more micronutrients? Slower plant growth under organic management (probably due to slow release forms of soil nitrogen) results in smaller plant size with more concentration of nutrients. In comparison conventional crops grow rapidly and synthesize more primary plant metabolites. Plants are known to synthesize more phytonutrients when they grow slowly and have more exposure to pests and environmental stress. Higher levels of soil micronutrients may also allow greater synthesis and accumulation of plant micronutrients. Reganold et al. (6) reported higher soil quality under organic management; this was based on measurements of higher microbial biomass and activity, greater enzymatic activity, higher amounts of soil micronutrients and higher total soil nitrogen and carbon.

References
One annual visit that certified organic farms can plan on is the visit from a MOFGA Certification Services inspector as part of the process for continuing in the certification program. In earlier days of MOFGA Certification, before the National Organic Program began, MOFGA’s inspectors were able to inspect and give advice to growers on their annual visits. In order to avoid a conflict of interest (such as inspectors requiring the use of a certain product or offering to consult for a fee) the NOP discourages inspectors from giving specific information to growers regarding meeting the rules. For this reason MOFGA has staff available through the Agricultural Services Department that can help with many of the questions or challenges of the annual certification update and organic production questions.

Eric Sideman
Eric Sideman began working with MOFGA farmers in 1986 and became what some call “the nation’s first Organic Extension Agent.” From 1997 to 2002 Eric served on the National Organic Standards Board (NOSB), an advisory board to the USDA National Organic Program. Eric provides technical support for farmers and gardeners. Vegetable and small fruit production are his specialties. He gives numerous talks throughout the year and issues weekly pest reports during the growing season. Eric’s main focus is farms in the southern area of Maine. He is available for consultation and farm visits. esideman@mofga.org

Dave Colson
Joining the Ag Services Staff in 2011 as the Ag Services Director and Farm advisor is Dave Colson. Dave has worked with MOFGA in countless ways since 1985 when his family’s New Leaf Farm in Durham first became certified organic. The Colson’s New Leaf Farm has been a source of organic vegetables, fruits and herbs for markets and restaurants in the greater Portland area. Now as a member of MOFGA’s staff, Dave is scaling back farm production somewhat, providing leadership to an evolving Ag Services staff, and sharing the wealth of knowledge that he has gained through decades of organic farming in Maine. dcolson@mofga.org

Diane Schivera
Our Organic Livestock Specialist, Diane Schivera, assists farmers with questions about raising farm animals organically. Diane works closely with the Maine Alternative Poultry Association (MAPA), and the Maine Grass Farmers’ Network. She coordinates workshops and pasture walks on alternative livestock health practices and management. Diane also writes fact sheets on livestock issues. Diane provides technical assistance through on-site farm visits, phone conversations and written and email correspondence. dianes@mofga.org

John Chartier
In Aroostook and Washington Counties MOFGA Ag Services is pleased to add John Chartier as the Farm Advisor for Maine’s northern region. John is proud to have grown up on a mixed crop and livestock farm in Kansas. John is pleased to provide a “one stop shop” for northern Maine farmers and gardeners accessing MOFGA services. John is available for farm visits and consulting as well as working on developing events and programs of interest to growers in northern Maine. jchartier@mofga.org

Katy Green
MOFGA Organic Transitions Coordinator Katy Green can help growers transition to organic production and connect with on-farm conservation programs. Trained as an NRCS Technical Services Provider, Katy not only helps new and transitioning farms enter the Certification Program, she can also aid farmers who wish to access NRCS conservation programs and (Continued on Pg 4)
MOFGA’s Ag Services
(Continued from Pg 3)

funding. She is available to help evaluate conservation on the farm, particularly on-farm water quality issues. kgreen@mofga.org

Melissa White Pillsbury
Don’t know what to grow or how to sell it? Melissa White Pillsbury, our Organic Marketing Coordinator, helps MOFGA farmers with their marketing plans and assists markets in securing reliable sources of farm goods. Melissa also compiles the monthly organic price reports, maintains a directory of Maine farmers’ markets, and oversees the publication of Organic Maine! and The Maine CSA Directory. melissa@mofga.org

Cheryl Wixson
Cheryl Wixson, Organic Marketing Consultant, is helping MOFGA develop a strategic marketing plan for organic, locally-grown foods. Aiding farms in gaining access to markets which require Food Safety Plans and connecting hospitals and institutions with local organic foods has been a focus of Cheryl’s marketing work. As a certified organic farmer and value-added food processor (Cheryl Wixson’s Kitchen brand), Cheryl can provide assistance to organic producers who are struggling with production records and lot numbering systems. Contact Cheryl about food safety plans, record keeping for processors, institutional markets. cheryl@mofga.org

C.J. Walke
C.J. Walke, MOFGA’s Organic Orchardist, manages the two orchards at MOFGA’s Common Ground Education Center in Unity, Maine. He also works with fruit tree growers and home gardeners to build orchard health and establish organic methods of pest and disease control. C.J. is deeply involved in MOFGA’s Organic Orcharding Workshop Series and gives various presentations on organic growing in the Belfast, Maine area. C.J. helps with Orchard Events both at MOFGA and around the state and is available for orchard and fruit tree related questions. cjwalke@mofga.org

Biodegradable Plastic:
Still not permitted, but stay tuned....

Eric Sideman, Organic Crop Specialist

Nowhere else in the world is synthetic / non-synthetic used as the primary criteria to determine whether a substance is compatible with organic production. But, the USDA National Organic Program (NOP) does. Under USDA Organic Standards, materials used in organic production are either natural (non-synthetic), or are reviewed and put on a list of permitted synthetic materials. The alternative approach used by organic programs, which is much more common around the world, is a positive list that is a list of what is allowed. At the time the organic Rule was written, the synthetic/non-synthetic line was probably the best approach because it protected the integrity of organic from unfriendly folks at the USDA pressuring the NOP to allow materials that were not in line with historical organic production. If there were a simple positive list back then there would have been many things on it that would look very out of place to us organic folks. In the beginning the synthetic/non-synthetic line worked very well, even though it may have had to be blurred a bit at times to allow things that we organic growers were all using.

Now that we are 10 years into using the synthetic/non-synthetic line, we are coming up against too many material considerations that may need too much blurring of that line, i.e., materials are being considered for organic production that may very well meet the in-

(Continued on Pg 5)
Biodegradable Plastic  
(Continued from Pg 4)

tegrity of organic but may be synthetic, strictly speaking. Although we may not be stuck with this line forever as more and more people recognize this weakness, we are stuck with it now.

One of the materials that may be in line with the mission of organic farming, but is synthetic, is biodegradable plastic mulch. BioTelo is the most well known brand. Biodegradable mulches are on the positive list in Canada and Europe and elsewhere, but in the USA it is not allowed because it is synthetic and the manufacturer has, until very recently, not followed the procedure for getting the material on the USDA/NOP list of synthetic materials allowed in organic production. The way that it is done is that a petition is submitted, the NOSB reviews the petition against the criteria in the Rule and makes a recommendation to the NOP, and then the NOP decides whether to list or not list. Finally, last month a petition to add biodegradable plastic mulch to the list of permitted synthetic materials was submitted. Of course, it may be years before it works its way through the system. That is not all bad because the system will give it a very thorough review of compatibility with organic.

Biodegradable plastic is synthetic. The plastic may be made using natural raw materials. However, the way they turn these natural materials (e.g., corn starch) into a plastic is through chemical reactions that create polymers. Following the Organic Rule, such a synthetic material has to be reviewed against the criteria presented in Section 205.600. You all could get a copy of this but basically it includes considering things like how the substance is manufactured, whether use and disposal has adverse effects on the environment, whether the substance is harmful to human health, whether there are natural alternatives, etc. I am not sure what criteria those organic standards with a positive materials list (e.g., Canada) used when approving biodegradable plastic, but I hope they were as good as the criteria the USDA/NOP uses. And, I hope that after the review it turns out that BioTelo meets those criteria. In the trials of BioTelo that I have seen it has worked very well. And it sure will be a pleasure not to see truckloads of plastic head off to the landfill at the end of the season.

New Rules for Meat & Poultry Labeling

Diane Schivera, Organic Livestock Specialist

There is a new rule regarding labeling of certain cuts of red meat and poultry; Title 9 Code of Federal Regulations Regarding Nutrition Labeling, and the information that follows below comes from the USDA website http://www.fsis.usda.gov. If you have questions about this new requirement you can contact Diane Schivera at MOFGA.

The requirements of the final rule became effective on January 1, 2012 and FSIS will begin assessing whether nutrition information is available for the major cuts, either on package labels or at the point-of-purchase (a poster or handout nutrition information).

To assist vendors that sell meat and poultry products to post point-of-purchase, FSIS has created downloadable charts for printing. These charts show nutrition information for the major cuts of meat and poultry. Retail stores are welcome to download, print, display and/or distribute them to consumers in close proximity to the relevant foods in the stores. The list of food items with nutrition information reflects the updates published in the Federal Register of December 29, 2010. They have also made available labels for individual cuts like the example shown below (ground beef, 95% lean).
New Rules for Meat and Poultry Labeling

(Continued from page 5)

Go to the website to look at examples of labels for individual retail product labeling. The POP label site is: http://www.fsis.usda.gov/regulations/Nutrition_Labelling/index.asp

FSIS may sample and conduct nutrient analysis of ground or chopped products to verify compliance with nutrition labeling requirements, even if nutrition labeling on these products is based on the most current representative database values contained in USDA's National Nutrient Data Bank or the USDA National Nutrient Database for Standard Reference, and there are no claims on the labeling.

This rule requires nutrition labeling of the major cuts of single-ingredient, raw meat and poultry products, unless an exemption applies. Nutrition information for these products will be required either on their label or at their point-of-purchase (e.g., by sign or brochure).

Examples of Major Cuts of Meat Products

<table>
<thead>
<tr>
<th>Beef</th>
<th>Beef</th>
<th>Pork</th>
<th>Pork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chuck blade roast</td>
<td>Loin sirloin steak</td>
<td>Loin chop</td>
<td>Shoulder blade steak</td>
</tr>
<tr>
<td>Loin top loin steak</td>
<td>Round bottom round steak</td>
<td>Loin country style ribs</td>
<td>Loin top roast boneless</td>
</tr>
<tr>
<td>Rib roast large end</td>
<td>Brisket (whole, flat half, or point half)</td>
<td>Loin top loin chop boneless</td>
<td>Loin sirloin roast</td>
</tr>
<tr>
<td>Round eye round steak</td>
<td>Rib steak small end</td>
<td>Loin rib chop</td>
<td></td>
</tr>
<tr>
<td>Round top round steak</td>
<td>Loin tenderloin steak</td>
<td>Spareribs</td>
<td></td>
</tr>
<tr>
<td>Round tip roast</td>
<td>Chuck arm pot roast</td>
<td>Loin tenderloin</td>
<td></td>
</tr>
</tbody>
</table>

Lamb

<table>
<thead>
<tr>
<th>Lamb</th>
<th>Veal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shank</td>
<td>Shoulder arm steak</td>
</tr>
<tr>
<td>Shoulder arm chop</td>
<td>Shoulder blade steak</td>
</tr>
<tr>
<td>Shoulder blade chop</td>
<td>Rib roast</td>
</tr>
<tr>
<td>Rib roast</td>
<td>Loin chop</td>
</tr>
<tr>
<td>Loin chop</td>
<td>Cutlets</td>
</tr>
<tr>
<td>Leg (whole, sirloin half, or shank half)</td>
<td></td>
</tr>
</tbody>
</table>

Examples of Major Cuts of Poultry Products

<table>
<thead>
<tr>
<th>Chicken</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole chicken (without neck and giblets)</td>
<td>Whole turkey (without neck and giblets; separate nutrient panels for white and dark meat permitted as an option)</td>
</tr>
<tr>
<td>Chicken breast</td>
<td>Turkey breast</td>
</tr>
<tr>
<td>Chicken wing</td>
<td>Turkey wing</td>
</tr>
<tr>
<td>Chicken drumstick</td>
<td>Turkey drumstick</td>
</tr>
<tr>
<td>Chicken thigh</td>
<td>Turkey thigh</td>
</tr>
</tbody>
</table>

The next sentence is very significant. The rule does not require nutrition information for single-ingredient, raw meat and poultry products that are not the listed above major cuts and that are not ground or chopped. So if you sell a whole chicken with the giblets and/or neck a nutritional label is not required. This also includes non-major cuts. Examples of non-major cuts are beef flank steak, beef ribs and chicken tenders. But, if nutrition information is provided for these products, it must be provided in accordance with the nutrition information labeling requirements for the major cuts.

Exemptions

The final rule exempts the following products from nutrition labeling requirements for the major cuts of single-ingredient, raw meat and poultry products and ground or chopped meat and poultry products:

- Products intended for further processing, provided that the labels for these products bear no nutrition claims or nutrition information,
- Products that are not for sale to consumers, provided that the labels for these products bear no nutrition claims or nutrition information,
- Products in individually wrapped small packages of less than ½ ounce net weight, provided that the labels for these products bear no nutrition claims or nutrition information,
- Products that are custom slaughtered or prepared, and
- Products intended for export,
- Ground or chopped products produced by a company that qualifies for the small business exemption in §§ 317.400(a)(1) and 381.500(a),

(Continued on Pg 8)
Weathering a Food Safety Recall: Are Your Records Ready?

Cheryl Wixson, Organic Marketing Consultant

Forty-one days after our company launched its first products, we received an urgent recall from Starwest Botanicals, a supplier of organic herbs and spices, due to salmonella contamination of organic celery seed, 1 pound size, lot number 40302, shipped between June 29, 2011, and November 29, 2011. We were instructed to examine our stocks immediately and discontinue use and distribution and recall any product we had distributed with the contaminated seed.

We had received Starwest organic celery seed on September 19 and put it into inventory, removing it from its original packaging. The lot number was not on the new storage container. With no record of the lot number, in accordance with good manufacturing processes and in the best interest of consumer safety, we assumed that the celery seed we received was contaminated. Our company continued with the recall process.

Every product prepared in our steam kettle receives a batch number, and we maintain batch logs that identify the batch number, date, product manufactured, number of units produced, ingredient sources and notes (e.g., pH or final temperature). Two of our licensed products, a pickled vegetable and a vegetable relish, contain organic celery seed.

From the batch log history, I calculated that 387 jars of product had been manufactured with celery seed. The last that may have contained contaminated seed was manufactured on October 26, 2011. The run was for 47 jars of the pickled vegetable, Batch # 1126101, with a pH of 3.75. From the recipe, I determined that we used 51 g of celery seed in the production.

Once product has been manufactured, jars are labeled and marked on the bottom with the batch number, are then placed in cases that are also marked with the batch number, and are stored in a warehouse room. We keep records of the batch numbers of all products distributed to our retail partners and to our winter shareholders. The identified, potentially contaminated manufactured product had not yet been distributed; all 47 jars were in the warehouse.

This analysis accounted for all but 9 g (about 1 Tbsp.) of the potentially contaminated celery seed. Was this much seed spilled in the transfer to a new container, or could it have contaminated other products?

Salmonella control focuses on adequately cooking food. We heat our product before bottling to 100 C (212 F). In accordance with the FDA Good Manufacturing Practices, we maintain a minimum fill temperature of 190 F for product going into the last jar of a batch. After a discussion with Jason Bolton, food safety specialist for the University of Maine Cooperative Extension Service, we determined that with our manufacturing processes, no microbiological food safety issue existed with any remaining products.

We notified Starwest Botanicals that we had located the contaminated seed and manufactured product. They instructed us to destroy both and compensated us for both.

The National Organic Program details record keeping by certified operations in NOP 205.103. Based on these and this food-safety recall, we realized that our records for tracking incoming ingredients needed additional components. We are developing processes to track produce from our certified organic suppliers, and herbs, seeds and ingredient from other suppliers. Future individual manufacturing runs will have a recipe batch sheet that tracks all ingredients, including lot numbers.

In licensing our product, Dr. Al Bushway, the food processing authority for Maine, had recommended that we develop a recall plan. The state recommends that all records be maintained for at least three years, while the NOP requires that all organic records be kept a minimum of five years.

For our small start-up company, the potential recall of almost 400 jars of product may have required that we contact 40 shareholders, 20 retail partners, and dozens of individual consumers. Fortunately, our records helped us weather the storm and improve our processes for future production.

Cheryl is MOFGA’s Organic Marketing Consultant. You can contact her at Cheryl@mofga.org.
New Rules for Meat and Poultry Labeling
(Continued from page 6)

- Ground products produced by small businesses that use statements of percent fat and percent lean on the label or in labeling, provided that they include no other nutrition claims or nutrition information on the product labels or labeling.

Percent Lean Labeling Claim
The final rule permits a statement of lean percentage on the label or in labeling of ground or chopped meat and poultry products that do not meet the regulatory criteria to be labeled “low fat,” provided that a statement of the fat percentage that meets the specified criteria also is displayed on the label or in labeling. The required statement of fat percentage must be contiguous to, in lettering of the same color, size, and type as, and on the same color background as, the statement of lean percentage.

The regulations in 9 CFR 317.309(h) and 381.409(h) specify that certain nutrient values are not out of compliance, unless they are more than 20% above the labeled value. That rule applies to the labeled values for calories, sugars, total fat, saturated fat, cholesterol, or sodium. These regulations also specify that certain nutrient values are not out of compliance, unless they are 20% below the labeled value. That rule applies to the labeled values for vitamins, minerals, protein, total carbohydrates, dietary fiber, other carbohydrates, polyunsaturated or monounsaturated fat or potassium.

If a producer is not sure of the lean and fat percentage of a ground or chopped product, they can label it with a worse lean and fat percentage. For example, a producer could label a product that is actually 80% lean and 20% fat, with a 70%/30% fat label.

FSIS would not take action against producers estimating that their products are higher in fat than they actually are.

Do It Yourself (DIY) MOFGA Certified Organic Marketing Tools Available for Download

In response to feedback from growers, we’ve made our MOFGA Certified Organic Logo available for download from our website. We also put together some label templates that we think might be handy. You can customize them and print them on the suggested card and label stocks from your own printers. Check it out at: http://mofgacertification.org. Click on the ORGANIC MARKETING TOOLS tab at the top of the homepage. Don’t be shy about your MOFGA Certified Organic status! Identifying your certifier as well as identifying harvest or production lots is label information that consumers need to see and we hope these templates make this task easier.

Farmer-Related Grant Opportunities

- Heart of Maine RC&D – For producers in Somerset, Penobscot and Piscataquis counties. Matching funds are available for wheat production ($1,000) and cold storage facilities ($1,500). Deadline: ASAP (http://www.heartofmaine.org/grants.shtml)

- USDA Value-Added Producer Grants (VAPG) - Grants may be used for planning activities and for working capital for marketing value-added agricultural products and for farm-based renewable energy. Contact your regional office. Deadline: ASAP (http://www.rurdev.usda.gov/me/Offices/office.htm)


- SARE Farmer Grant – For commercial farmers looking to test new ideas through field trials, on-farm demonstrations or other techniques. Deadline: December 2012 (http://www.nesare.org/Grants/Get-a-Grant/Farmer-Grant)

- SARE Partnership Grant – For cooperative projects led by agricultural service providers to conduct on-farm demonstrations, research or marketing projects. Deadline: November 2012 (http://www.nesare.org/Grants/Get-a-Grant/Partnership-Grant)
Lot Number Primer

A lot number is a unique code of numbers and/or letters that represent specific pieces of information connected to a specific batch of product. It is the endpoint of a tracking system mandated by the National Organic Program (NOP) for the purpose of tracing organic agricultural products back to the farm or field or animal of origin, thus ensuring a high level of consumer confidence. Both unprocessed and processed farm products may be required to have lot numbers. Lot numbers are good for your business. They can limit the scope of a recall. They can aid farmers in disputes with buyers about product quality.

Which products DO NOT need a lot number?
- Unprocessed or minimally processed farm products (fruits, vegetables, eggs, maple syrup) sold directly to consumers or to local markets, co-ops or buying clubs

Which products DO need a lot number?
- Unprocessed farm products (fruits, vegetables, eggs) sold to third party buyers (processors, wholesalers, distributors)
- Processed farm products (cheese, milk, jam, pickles, meat) sold retail or wholesale
- All incoming ingredients and all products shipping from a processing/handling facility

What information might a lot number contain?
- The date of harvest or production or processing
- Type of crop
- A “best by” date
- A field or storage unit number
- A batch number for processed products

As an example, a lot number for organic Yukon Gold potatoes harvested in 2011 and stored in a farm storage bin could read “YG119”. The YG stands for Yukon Gold, 11 represents the year, and 9 is the storage bin number. The farm storage records for bin #9 should show the date of harvest, the amount harvested, and the fields of origin of the potatoes. Thus the lot number plus the farm’s storage records allow the potatoes to be tracked back to a field(s) of origin. For all sales of these potatoes the invoices and the shipping containers would contain this lot number.

Whenever two or more products are combined, assign a new lot number. Record the new lot number on a production log and be sure to include the lot numbers of the incoming organic products that you combined. Otherwise, you will lose the audit trail.

Here is a more complex lot number system example:

### Slaughter and Cut Log for 123 Farm’s Beef Cattle

<table>
<thead>
<tr>
<th>Species or Product</th>
<th>Quantity (head)</th>
<th>Slaughter Date</th>
<th>Slaughter Lot Number</th>
<th>Cut Date</th>
<th>Cutting Lot Number</th>
<th>Cut Lot Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>3</td>
<td>10/10/11</td>
<td>101011</td>
<td>10/11/11</td>
<td>C1-101111</td>
<td>900 lbs.</td>
</tr>
</tbody>
</table>

### Production Log for 123 Farm’s Beef Products

123 Farm bought in another farm’s beef trim and ground it in two batches, AM and PM, on October 20, 2011, before making the patties on the 21st.

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
<th>Process Lot Number</th>
<th>Process Date</th>
<th>Sub-Lot Examples</th>
<th>Component Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Beef Patties</td>
<td>200 lbs.</td>
<td>29311* (Julian date)</td>
<td>10/21/11</td>
<td>102011A, 102011P</td>
<td>Beef trim: 150 lbs., C1-101111</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Beef trim: 55 lbs., C91611A (XYZ Farms)</td>
</tr>
</tbody>
</table>

(Continued on Pg 10)
Lot Number Primer - (Continued form Pg 9)

Sales Log for 123 Farm’s Beef Products

<table>
<thead>
<tr>
<th>Sales Date</th>
<th>Product</th>
<th>Costumer</th>
<th>Lot Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/25/11</td>
<td>Ground Beef Patties</td>
<td>Cross Trax</td>
<td>100 lbs., 29311</td>
</tr>
<tr>
<td>10/26/11</td>
<td>Ground Beef Patties</td>
<td>MOFGA</td>
<td>100 lbs., 29311</td>
</tr>
</tbody>
</table>

We recommend testing your system. Pretend you are an organic inspector and do a mass balance (pounds of production should equal pounds of sales). Next, pretend there is a safety concern with a product (or ingredient) you used. Do a mock recall. How easily were you able to find affected products? Was your system able to minimize the amount of product you would have to recall? Please contact MCS if you have any questions.

*Julian date website: http://www.fs.fed.us/fire/partners/fepp/juliandate.htm

Record Keeping for Crop Farms

Dave Colson, Ag Services Director

Record keeping. Not everyone’s favorite subject, but one that’s necessary to insure the integrity of a farm’s organic system. This may be a requirement for certification, but ideally those same records should allow you to evaluate your farm operation and to meet your farming goals. But, what records are necessary for certification and how much detail do you need? For this issue I’ll try to lay out what has been useful on our farm for both of these needs. Livestock record keeping requires another set of records, which will have to be addressed in future publications.

My record keeping has taken a number of forms over the years, all are of interest on our farm inspections, but some will be required by your certifier. The full list of records we keep include: a seed purchase log, a garden planning log, a sowing record, field maps, a fertilizer and supply log, a field activity log and harvest and sales records. Additionally, all of our farm purchases are recorded in a “One Write” checkbook system that allows us to keep track of the major purchase categories for use in creating next year’s budget. That may seem excessive to some folks, so I want to focus on a few of these as the basic records.

Sowing Record

For me this is our index. The sowing record contains the basic information I need to find a particular planting in the field and trace it back to the seed company or source that it came from. The original sowing date is the key, and follows the crop to it’s place on my field map so that I can locate it in the sowing record. Recorded in this log, besides the date, are the seed type, variety, whether the seed is certified organic, the seed company, the amount sown, any grafting or repotting, transplant date and quantities planted, location and additional comments. This sounds like a lot, but all those columns fit across the length of a page, and can be filled in pretty quickly. This is my favorite log, since it looks so hopeful with all of these seeds started and I find it invaluable for helping me to plan and order seed for next season.

Maps

I like a map or maps that I can carry around on a clipboard while I make field observations or to refer to while I’m working on the tractor (yes, we have tilled them in accidently once or twice). Each field or garden area will have it’s own map, the beds are numbered and show the crop planted, the original sowing date, the transplant date (if appropriate) and the number of bed feet planted. You’re certifier will not need maps of this detail, but these maps are your link between what you sow and what you harvest.

Field Activity Log

I think this is a major point of confusion for many growers. How much detail is necessary here? You may find a record of daily activities like weeding, transplanting, watering, ect. to be helpful, but keeping up that much detail once the season is in full gear and there are multiple people involved in these tasks can be a challenge. What I try to capture in our activity logs are major tillage events and inputs added to the field. Each separate (Continued on Pg 11)
Record Keeping for Crop Farms
(Continued from Pg 10)

garden area (or map) has it’s own field record. Major tillage events would be plowing and discing or rotovating, fertilizer applications, mulching and green manure plantings. On this record I don’t record the transplanting, or weeding or watering work, just the major field activities. On the back end of the season we record when field areas are tilled and fall cover crops are planted.

Harvest Records
This is another area where the level of detail can become overwhelming. I divide harvest records into two categories, first are the crops like swiss chard or kale, which are planted early in the spring and harvested throughout the season. For these I rely on my sales records, since that will give me a yearly harvest total and I have traceback to the field area planted, since they are only planted once.

For crops with multiple plantings or ingredients (like salad mix) I create a page for each crop in a notebook and the person responsible for that crop records the quantity harvested and the field location each time that crop is picked. This gives me both a record of the gross yield of each crop and where it was grown for traceback purposes.

Finally, since all of our sales in recent years have been to wholesale accounts our sales records are done on Quickbooks. This gives us a total net harvest after sorting and grading and helps us with future crop evaluation and planning for the next season. Additionally, the sales date becomes our audit number for customers since I can use the dates on our harvest log to determine what crops were packed from which fields on any given invoice. For direct market farms a list of how many shares are distributed and what was in a share should be adequate for a CSA farm’s sales records. Farmer’s market sales records only need to show the cash receipt for each day at market to satisfy certification requirements, but you may want to have more detail for your own needs.

The bottom line for record keeping (and most any other farm task) is to make the job as easy as possible to do while still getting the job done. Try to set up a system that you can use on a regular basis without having the task become too tedious or the detail more than you need for your operation.

For more information or help in setting up a record keeping system contact Dave Colson at MOFGA, (dcolson@mofga.org) and have a great season.

News...

State Reimbursement Program Changes
Well, it’s actually a federal farm bill program. In any event, we are working with the State Department of Agriculture, who disperses the funds, on running batches several times per year. No more waiting until the end of the year! Kate Newkirk at MCS and Debbie Davis at the Dept of Ag will be doing a rebate run in May.

If you are new to being certified and getting this rebate, you must fill out a form with the State called a Vendor Authorization Form and your data must match the data that MOFGA Certification Services has for you. This form will be sent to you—do not throw it away! If you have questions, give us a call or drop us a line at certification@mofga.org.

Equivalency with the EU!
First Canada and now the European Union! Quelle excitement! OK, so this may not impact many certified farmers in Maine, but it is still big news and it ends the debate about whether we should seek expensive ISO 65 accreditation in order to serve the few producers who do sell abroad. So, starting on 1 June 2012, products certified as organic in the US or the EU may be sold as organic in either place. Of course, there is a little paperwork that needs to happen, and there are some restrictions given that organic standards around the world don’t completely align. If selling your organic products outside of the US is something you are interested in, please contact Kate Newkirk (knewkirk@mofga.org) so that the proper verifications are made.

Filing Complaints about Organic Marketing
We are often asked about reporting violations of the Organic Standards. Anyone can do so. The USDA will investigate complaints against producers who market organically but who are not certified. Complaints against certified operations can go directly to their certifier. The link to the USDA webpage is not print friendly. If you enter these terms—“NOP file a complaint”—in an Internet search engine such as Google you will find the website easily and can file a complaint electronically. Otherwise, here is their contact information:

NOP Compliance and Enforcement
USDA, Agricultural Marketing Service
1400 Independence Avenue, S.W.
Mail Stop 0268
Washington, D.C. 20250
Phone: (202) 720-3252
Fax: (202) 205-7808
E-Mail: NOPcompliance@ams.usda.gov
2012 calendar

Events & Training

May

5—Orcharding Workshop: Orcharding 101, Unity, with Michael Phillips author of The Apple Grower. Pre-registration required.

15—Pollinator Training, Unity. Co-sponsored by MOFGA and the Xerces Society, get a crash course in basic bee field indentification, pollinator biology and habitat requirements and restoration, bee-friendly farm mgmt practices. FMI contact Eric Mader: eric@xerces.org.

23—Organic Orcharding Workshop: Managing Fruit Trees Organically, Unity. Join C.J. Walke, MOFGA’s Organic Orchardist, as he discusses organic orcharding methods and explains how he manages the orchards at MOFGA’s Common Ground Education Center.

23 to July 1—Permaculture Design Certificate Course at Newforest Institute. Topics: Design for True Resilience in Maine; Edible Landscapes & Food Forests; Energy Efficiency & Green Building; Food Preservation & Storage; City/ Suburbs/ Rural Applications. Fee $1350. $250 deposit required. Registration: 207-722-3625, info@newforestinstitute.org.

June

Weekly – Beginning in June: MOFGA’s Farm Training Projects at locations around Maine. Workshops enable MOFGA apprentices and other young, beginning and aspiring farmers to visit other farms, learn from farmers about their areas of expertise, and network. Free. Schedule to post in May.http://www.mofga.org/Events/FarmTrainingProjectWorkshops/tabid/298/Default.aspx.

16 - Farm & Homestead Day. MOFGA’s Common Ground Education Ctr in Unity. See the Spring MOFGA for details.

July

26 & 27—The Kneading Conference. At the Skowhegan State Fairgrounds. The conference brings together novice and professional bakers, grain farmers and millers, researchers, wood-fired oven enthusiasts and lovers of handcrafted breads for workshops, presentations, and panel discussions. MOFGA is a sustaining sponsor of this event. http://kneadingconference.com/.

28 - Artisan Bread Fair. At the Skowhegan State Fairgrounds. 9 a.m. to 4 p.m. at the Skowhegan State Fairgrounds. Dozens of vendors. Tour the Somerset Grist Mill. Live music. http://kneadingconference.com/.

28 - Organic Orcharding Workshop: Bud Grafting. Thorndike. Bud grafting is a great way to start your own fruit trees as well as many ornamentals. “Budding” uses individual buds from this year’s new growth to graft onto rootstock already set in the nursery. Taught by Delton Curtis of Curtis Pond Nursery, grafter for FEDCO trees. Course will run from 10-1 pm.

For a full calendar of events please visit: http://www.mofga.org/tabid/417/Default.aspx