

Farm Women Societies

Lancaster Society 24

Lancaster Farm Women Society #24 met at the home of Louetta Hurst, Lancaster, on August 30. Twenty-three members answered to roll call "A Doll I Remember". Sandy Yocum displayed several different dolls of her collection and told interesting stories pertaining to each one. Sandy started her collection of dolls about 20 years ago and featured dolls from all around the world.

Mary Ann Greiner, president, conducted a short business meeting following the program. The group will hold their annual Rummage

Sale on October 1, at the Lancaster Laboratories Pavilion, New Holland Pike from 8 a.m. to 2 p.m. Election of officers results were Pres.- Cindy Yingling; Vice Pres.- Pat Martin; Secretary- Dot Mast; Asst. Secretary- Doris Bewley; Treasurer- Audrey Myer; Asst. Treasurer- Lydia Ann Bentzel. Members will meet Sept. 27th at the Welsh Mountain Samaritan Home, New Holland, when they entertain the guest and play Bingo. Following this the group will meet at Yoder's Restaurant for dessert and short business meeting.

Berks Society 4

The September meeting of Berks County Society of Farm Women Group 4 was held at the Bechtelsville home of Charlotte Mauger with eight members present.

Five members plan to attend the county convention on October 1 at

the Berks County Agriculture Center. The group is responsible for door prizes, for gift basket items, and a silent auction table.

The next meeting on October 11 at 6 o'clock will be at the Leader Home in Pottstown with resident Evelyn Becker as the hostess.

Berks Society 6

The Berks County Farm Women Group #6 met in July at the home of Mary Jane Hetrick. David Kessler, Oley Township Supervisor, was the guest speaker.

The August meeting was held at the home of Janet Schlegel. A video was shown on farm safety.

September 10 was the Berks Heim Festival. Quilt waffle tickets

were also sold to benefit Berks Heim.

On August 21, the group held their family picnic at the Oley Legion Grove. Good food and games were enjoyed by the 25 people who attended.

The September 20 meeting will be held at the home of Joyce Mast, Oley.

Maps Might Provide Best Route For Pest Management

UNIVERSITY PARK (Centre Co.) — General since the age of Julius Caesar have known that maps are crucial tools for waging war. Now a team of researchers in Penn State's College of Agricultural Sciences are using unique mapping techniques to battle beetles invading potato chips.

Randy Weisz, a research associate in the college's entomology department, is in the third year of a project designed to give Pennsylvania potato farmers a clearer picture of their pesticide needs to control the Colorado potato beetle.

Weisz and his team mark off a field into sections, walk through and count the beetles in each section, and enter their findings into a hand-held computer. Those data are fed directly into a larger personal computer, which then produces a map tracing the areas where large numbers of insects are living or invading the field.

"The farmer can use the map to spray only the portion of the field where a pesticide is needed," Weisz says. "We count the field by 3 p.m., make the map by 4:30 p.m. and the grower has the information on where to spray by the next morning."

According to Zane Smilowitz, professor of entomology, Pennsylvania has some 22,000 acres of

potato crops, almost all on smaller farms that could easily use such mapping technology.

When insects infest a field, Weisz says, most pests enter at one point and spread out. By mapping the insects' migration, the farmer can just spray "hot spots" with large populations. In test cases, the Penn State researchers reduced insecticide use by 50 percent and fungicide use by 70 percent.

The Colorado potato beetle is a formidable foe. The pests quickly develop genetic resistance to pesticides, and the pesticides now used to combat the beetle must be applied to an entire field almost weekly to control them.

"The problem is literally out of control," Weisz says. "Potatoes are the most pesticide-intensive crop in the world. Farmers can pay \$365 an acre per year just to keep insects at bay."

While the researchers have documented significant drops in pesticide usage, Weisz points out two other advantages to mapping pesky pests.

- Partial spraying could hinder beetles from developing resistance because those beetles left in the unsprayed portion of the field would re-introduce the gene for pesticide susceptibility.
- Spraying the entire field also

UNIVERSITY PARK (Centre Co.) — Environmentally conscious farmers could turn trash into cash by recycling plastics used in agriculture if they're willing to change some long-standing habits, says an agricultural engineer in Penn State's College of Agricultural Sciences.

According to James Garthe, an instructor in agricultural and biological engineering, farms in the United States use several hundred million pounds of plastic every year, much of which has to be disposed of after the growing season. These plastics include pots, trays, pesticide containers, and film sheeting of varying thicknesses used for mulching, crop cover and silage wraps and bags.

"It costs farmers money to haul plastics to a landfill," Garthe says. "Farmers have to look at plastics as a byproduct of production — something from which they can make money or at least break even."

According to Garthe, more than 60 percent of Pennsylvania's fruit and vegetable farmers currently dispose of plastics by burning, releasing harmful substances into an already polluted atmosphere. Farmers who do not burn often bury the plastics on their farms or take them to landfills.

Although a market exists for agricultural plastics, recycling firms do not often buy such material because few farmers currently recycle. "Right now most growers can't provide quantity and consistency for the recycler, so it doesn't make economic sense for recyclers to buy agricultural plastics," Garthe says.

Farmers and recyclers must also overcome other obstacles before recycling can become economically feasible, Garthe says.

For example, agricultural plastics come in a variety of types, most of which must be separated before recycling. Recyclers will

obliterate the potato beetles' natural predators. By spraying only hot spots, potato beetle predators such as the ladybird beetle and the stinkbug are free to seek more prey.

The technology used to produce beetle maps is quite simple. Researchers use hand-held computers similar to those used for grocery inventory to count bugs in each field section. The computer software used to generate the map is adapted from a program used by geologists. "In a real-life application, the information could be fed right into a laptop computer out in the field which then prints out a map," Weisz says. "This technology is not far away at all."

Shelby Fleischer, assistant professor of entomology, says computer mapping, which is a component of geographic information systems (GIS), can be adapted to almost any crop. Indeed, another Penn State researcher, David Midgarden, is mapping insect pests and their natural enemies in a five-acre commercial tomato greenhouse.

"Our work right now has been to produce a workable map to track insects," says Fleischer. "We can use the principles of GIS to make maps to track other variables in a particular field as well,"

Farmers Could Turn Plastic Into Cash Flow

only accept separated plastics, so farmers must sort the material.

Most agricultural plastics are heavily contaminated. Unlike soft drink containers and milk jugs, agricultural plastics cannot be rinsed out and thrown in a recycling bin. Agricultural film often is buried as mulch or used to bag feed, which means these films are covered with soil and other contaminants. Pesticide containers have chemical residues. To clean these plastics, farmers must thoroughly wash them.

"Soil can add up to 80 percent more weight to plastics, which increases cost to farmers when they ship to recyclers," Garthe says.

Finally, costs to collect and transport used plastics to a recycling site, often located in urban areas, can be high. "Distribution becomes a logistic nightmare," Garthe says. "This means farmers must change their old habits and work with recyclers to make it

worth the time."

As an example, Garthe says farmers could demand that manufacturers use recycled material in products, thus creating a market. Farmers and recyclers can also work to establish common collection points to lessen costs of transportation and build up quantities of plastic faster.

Garthe says recycling agricultural plastics is still a fledgling concept and that economics may prove it to be too expensive right now. He explains that another solution may be to market used agricultural plastics as fuel for waste-to-energy power plants. The bottom line, he says, is making agriculture more environmentally friendly.

"Most farmers by nature are concerned with stewardship of the land," Garthe says. "They know the farm has to last more than one generation, and taking care of the environment is one way to ensure that," Garthe says.

Wax-Coated Produce Attracts Customers

UNIVERSITY PARK (Centre Co.) — When a gleam hits your eye from across the fruit and vegetable bins at your local supermarket, chances are good that the product attracting such attention has been given a thin coating of wax.

Savvy shoppers have noticed that many stores now provide signs or labels identifying the type of wax used. Such labeling has been in effect since May to comply with Food and Drug Administration regulations that give consumers more nutritional information on which to base a purchase.

Although many consumers may not have known that some fruits and vegetables are waxed during the marketing process, experts in Penn State's College of Agricultural Sciences point out that such practices date back to the 1930s. Indeed, most agricultural experts tend to wax enthusiastically about the benefits of adding a thin layer of protectant over the skin of certain types of produce.

Dr. Mike Orzolek, professor of vegetable crops, says produce is waxed primarily to ensure freshness. For example, peppers and cucumbers would lose moisture rapidly if they were not waxed.

"Cucumbers would look like old prunes after just a few days because they lose water so quickly," he says. "Waxes also serve as a sealant to prevent disease or fungus from entering any tears or punctures in the skin of a product."

Dr. Gerald Kuhn, a food science professor who recently retired from Penn State, says waxing also provides a thin, but nearly impermeable barrier to fungi that start the process of decay in fruits and vegetables. "Waxing can extend the room-temperature shelf

life of produce by a week or up to a month," says Kuhn, nationally known for his expertise in food preservation.

Kuhn says consumers should not be alarmed at labels listing different types of waxes. Waxes have been in use for decades as a preservative.

"In nature, apples and other produce make a natural wax — called cuticle — derived from plant foods," he says.

According to the U.S. Department of Agriculture, produce often is washed repeatedly during harvesting, removing natural waxes. To retain moisture, growers add wax before shipping.

All waxes used on produce come from natural sources. Produce waxes usually combine carnauba wax (made from Brazilian palm leaves), food-grade shellac (made from lac bug secretions), polyethylene or paraffin waxes. Animal-based waxes are available, but producers in the United States rarely use them because such waxes conflict with Kosher or vegetarian diets.

Nearly two dozen produce items can be treated with wax, among them apples, avocados, bell peppers, cantaloupes, cucumbers, eggplants, grapefruits, lemons, limes, melons, oranges, peaches, pineapples, pumpkins, rutabagas, squash, tomatoes and turnips.

Although most commercial waxes cannot be removed by washing, Orzolek recommends peeling the fruit or vegetable if you are leery of eating wax.

"If producers were able to pick a piece of perfectly ripe fruit and get it to market in a few days, there would be no need to apply wax," Kuhn says. "But if the produce has to travel long distances, adding wax is appropriate to extend the perishable shelf life."

Easy quesadillas are a super snack. Spread a thin layer of prepared black bean dip on a flour tortilla then top with sliced or shredded cheese and a second tortilla. (Jalapeño pepper Monterey Jack tastes terrific.) Place on a pizza pan or baking sheet; bake at 350° for 5 minutes or until cheese melts. Cut into wedges to serve.

More people are brown-bagging than ever. In fact, "Tufts University Diet and Nutrition Letter" (December 1993) reports that the brown-bagging of meals and snacks has increased by more than 30 percent during the last 10 years.