



## Penn State Cooperative Extension Capitol Region Dairy Team

### PLANTER TUNE-UP Del Voight, Capitol Region Extension

Agronomy Agent, Lebanon

There are only about 75 working days left before the planter will again enter the field and begin the process of providing forage for farms across the region.

The planting operation is one of the most critical steps in achieving yield and quality. It also is the biggest reason why the adoption of narrow rows has failed because of improper planter tune-up.

The goal of the planter is to open a furrow, place the seed at the same depth so that each seed will develop, and create a "tabletop look" in the field. This uniform stand and emergence time will allow the plants to compete evenly throughout the season and achieve maximum sunlight interception and conversion to economic yield.

When plants fail to emerge uniformly, the late-emerging plants will act as a weed and result in a net loss in yield. Skips in the row will result in weed encroachment and the loss of yield from that part of the field. Those late emergers also end in barren or nubbin ears and further reduce quality.

Lynn Hoffman, former Penn State Agronomist, related that in some cases missing plants (skips) and late emergence because of seed depth variation may result in a 30 percent reduction in overall yield.

Planter maintenance is critical to the success of planting. You only have one chance to set the crop stage for success and it begins by getting the planter into the shop and tuning it now and not during the key times that the planter should be planting instead of sitting in the shop. Here are some things to consider.

The initial opener (wavy coulter or fluted) serves to cut open the residue to allow the disc opener to work its magic. The front coulter bears the brunt of wear and should be checked and replaced more often. Be sure the coulters do not cut deeper than the disc openers by checking its alignment with the disc opener.

Most plant stands that I view that suffered from planter error were victim to the oversight of the disc openers, not to mention that the front coulter is shot. The disc openers can be easily checked and replaced by the operator. You can be sure I will check them if the stand I view is poor.

The disc opener serves to lay a V trench that receives the seed and sets it at the bottom of the V. If the discs are worn, the trench

turns into a W and the seed is placed at varying positions, ending up with uneven emergence. Simply taking two business cards and positioning them one from between the disc openers on the bottom and one from top should reveal that they stop about 3 inches from each other. At least the card should not be easily slipped between them. I have seen them as wide as a half inch between.

In some cases, some shims placed on the shaft will help move the discs together. Replacement may be necessary. Take the time now to replace them and not when the soil temperature is 50 degrees.

The closing wheels can make or break the planting process. On loose ground, closing wheels with too much pressure can kick the seed up in the V slot and ruin the disc opener's intended purpose. The goal of the closing wheel is to close the V slot and firm soil around the seed. On hard-packed soil, the closing wheels will need more pressure (maybe even cast-closing wheels) to ensure seed coverage and firming.

I have been in too many fields that the V slot is left almost wide open because of a failure to provide enough down pressure to close the furrow. The closing wheels should be in the centerline of the disc openers. To check, simply place a ruler between the discs wedged on the center line and then again between the closing wheels. It should be center. Normally I discover that the outer units are bent because of the turning action of the planter when the units might not have been completely out of the soil.

Sure, most of you will say, 'I don't have that problem,' but have you checked lately? While you are there, check the gauge wheels that control the planting depth. Gauge wheels should touch the double-disc openers when a load is on the planter unit in the field. If gauge wheels are too far away from the disc blades, soil will get into the seed trench before the seed gets there! Again, shims can be used to take up the space.

Most common planters have a seed hopper that holds the seed and the seed drops through a tube to the disc openers. In addition, many planters have an eye sensor that sees the seed and transmits a signal to a unit to let the operator know the seed is moving through the tube. The tube and eye should be cleaned.

Mice nests that somehow get into the tubes should be removed. The seed metering device should be cleaned as well. Air and vacuum metering devices should be

disassembled and cleaned and all air supply tubes and seals checked for leaks or cracks.

On finger pickup units, the brush and back plate should be viewed and worn parts replaced. Many dealer locations offer a service to check the metering devices for proper function for a modest fee. I highly recommend this service. Now or last fall is a good time to get that accomplished.

All normal grease and lubricants should be used on chains and key pivot points. Each planter unit should be lifted to determine if the bushings need to be tightened or replaced. If more than an inch of play is noted when the unit is lifted, the bushing should be replaced. While the planter is lifted (be sure stops are in place for safety), check to see if all units are level with each other from side to side.

Many planters come with a fertilizer or insecticide delivery systems. These too will need attention. In some fields that were injured by fertilizer, the application of the materials was too close to the seed, or in one case three out of six rows had fertilizer applied directly on the seed, causing severe stand loss. Check to see that a 2 by 2 placement of the material is achieved by again using a set of straight sticks center on the seed trench and another center on the fertilizer tube. If liquid, be sure the nozzle is directed to the proper location. Dry insecticide boxes should also be cleaned of mouse nests and the metering device checked for wear.

It is critical to be sure that the T-band or in-furrow tube is properly placed. In one example, there was a failure to control insects because of the T-band applicator being partially plugged or completely missing. Again, you can be sure that when I visit your farm for a complaint, I will be visiting your planter.

One final note is leveling. The bottom of tongue should be leveled with a bubble level. To accomplish a level planter, the draw bar can be raised or lowered as needed.

For more information on planter maintenance, plan to attend the Regional Dairy and Silage Producer Family Day Feb. 11 at the Lebanon Exposition Center, which will feature a hands-on session on planter tune-up for your benefit. Call (717) 270-4391 for details.

Planter tune-up is not rocket science. There are basic low-cost steps that one needs to give priority to and recognize the importance of maintaining to ensure proper stands.

## Youth Compete In Simmental Breeding Show

MICHELLE KUNJAPPU  
Lancaster Farming Staff

HARRISBURG (Dauphin Co.) — In the junior Simmental breeding show, Emily Whitmoyer and Matthew Blauch came out with the top two heifers, according to show judge Gordon.

Emily's heifer, "Sweet Night" caught the judge's eye, who awarded the heifer with the grand champion nod.

Taking home the grand champion title, Emily, 15, is the daughter of Les and Mary Whitmoyer.

Along with and her sister, MaryEllen, Emily showed five Simmental cattle for Mountain View Farm, a 20-acre operation in Fredericksburg, which also has a few Dorset breeding sheep, besides the Simmental herd.

Emily, who began her show ring career at the Farm Show, has been exhibiting at the Farm Show for four years. A sophomore at Northern Lebanon High School, she is in 4-H and FFA.

Matthew Blauch's heifer won reserve champion. Matthew, the son of Doug and Pam Blauch, is from the family's Cattle Rock Acres. The farm includes 46 acres of pasture for their cow/calf, mostly-Simmental herd.

"Tice's Red Orbit," which he purchased at Keystone International Livestock Exposition (KILE) in October, won the title

for Matthew at Monday's competition in the Equine Arena. The heifer was stylish and had volume and thickness, according to judge David Gordon.

Matthew has been exhibiting cattle since he was eight years old and shows both FFA and 4-H projects. The Blauch family brought five head of cattle to the Farm Show — four for Matthew and one for his sister Valerie, 13, to exhibit.

David Gordon, who has an associate degree in agriculture from Butler Community College, Kansas and was on the college's livestock judging team, judged the show.

Early summer calves: 1. Shelby Ranick. 2. Curtis Bish.

Spring calves: 1. Shelby Ranick. 2. Elena Poliskiewicz.

Junior calves: 1. Emily Whitmoyer. 2. Jesse Poliskiewicz.

Champion calf: Emily Whitmoyer.

Reserve champion calf: Shelby Ranick.

Summer yearling: 1. Curtis Bish. 2. Elena Poliskiewicz. 3. Curtis Bish.

Spring yearling: 1. Sarah Messer. 2. Shelby Ranick. 3. Rhonda Hook.

Intermediate champion: Sarah Messer.

Immediate reserve champion: Shelby Ranick.

Junior yearling: 1. Matthew Blauch. 2. Christopher Diamond Sr. 3. Shelby Ranick.

Junior champion: Matthew Blauch.

Junior reserve champion: Christopher Diamond Sr.

GRAND CHAMPION HEIFER  
Emily Whitmoyer

RESERVE GRAND CHAMPION HEIFER  
Matthew Blauch

## Heifer Calf Tops Angus Female Show At Farm Show

HARRISBURG (Dauphin Co.) — Quality ran deep in the Angus female show, but Rains Pride Lucy prevailed over all.

Dale Rains, Mercer County, lead his January 2002 heifer calf, Rains Pride Lucy to champion Angus heifer honors.

Rains first topped the heifer calf division before garnering this top award. Not only did Dale Rains lead the champion female in the show, but he also is a co-owner and breeder of the reserve champion female as well.

Rains Forever Barbie, co-owned by Rains Angus, Mercer County; Weaver Show Cattle, New Holland, Lancaster County; and Mt. Valley Angus,

Lititz, Lancaster County, took the reserve champion female spot. She first topped the Junior Division.

Following the Heifer Show, judge John Pyne, Mount Desert, Maine evaluated 27 Angus bulls. After thorough examination, JDH Key Heir was selected as the champion Angus bull.

Exhibited by JDH Cattle Company, Dover, York County, JDH Key Heir first topped the junior bull division. Easily following the champion, Golden Rule Saugahatchee 220, was lead to reserve champion bull honors by Carl Detweiler, Roaring Springs, Bedford County. This bull first topped the junior bull calf division.

## Susquehanna Extension Helps County Residents Solve Pond Problems

MONTROSE (Susquehanna Co.)—Ponds can provide many recreational benefits to homeowners, but they have their share of problems, says a water resources specialist in Penn State's College of Agricultural Sciences.

"Some may develop leaks or fill with sediment," says Extension Associate Bryan Swistock. "The water may be muddy, or choked with weeds and algae. And sometimes, that big fish you hoped would be there for the kids to catch just doesn't materialize."

To address the basics of pond management, experts from Penn State, the Pennsylvania Fish and Boat Commission and Mansfield University will offer a live satellite clinic from 7:00 p.m. to 8:30 p.m. on Feb. 27. The program will be aired locally at the County Office Building in Montrose through Penn State Cooperative Extension, of Susquehanna County. The actual program will begin at 7:00 p.m.

Swistock recommends that people who own a pond develop a management strategy depending on their goals.

"How you manage your pond depends on your goals," he explains. "People who want a pond for swimming, for instance,

usually want a clean, sandy bottom without many weeds. But if you want a good fishery, you'll need some plants and structures."

During the program, the experts will offer tips and advice on common pond problems and proper management. Attendees will be able to ask questions by telephone and fax.

"The most frequent questions involve the control of aquatic plants and weeds," says Swistock, "so we'll spend time discussing how to identify and control nuisance plants and algae. We also get a lot of questions about fisheries, so we'll discuss the best kinds of fish to stock, the species to avoid and how to harvest to keep the populations balanced."

Other topics will include getting permits, general pond maintenance, and testing water quality. Professional pesticide applicators can receive re-certification credits for attending the program. The clinic is free, but pre-registration is required. For more information on the satellite program or on pond management, contact the Susquehanna County office of Penn State Cooperative Extension at 278-1158.