



Agronomy Notes

Capital Region

112 Pleasant Acres Rd., York, PA 17402 (717) 840-7408

Capital Region Extension Agronomy Team

Mark Goodson, Editor



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Deadline Near for Updating 2004 Production Yield Data

The foundation for your protection in most crop insurance plans is your annual yield history. It is critical that yields for each insurance unit are reported to your agent before the deadline. The deadline date for yield updating on most spring crops is April 29, 2005 (45 days after the March 15 sales closing date).

If you will be farming additional farms in 2005 or will be growing insured crops on farms that do NOT have a yield

history data base already established for the crop, or will be using the database of another person sharing in the crop, it is recommended that you provide the required yield records to your agent to establish a historical data base for each of these units for 2005.

Since most 2004 yields were substantially higher than the previous history, make sure that you have good written records for each crop unit. Keep in mind that APH yields are subject to spot check. And if you are selected, you want to make sure that your written records are acceptable to adequately support your good yields. If you have questions on record requirements, contact your crop insurance agent.

Report crop damage promptly If you suffer winterkill damage on insured winter wheat or barley, be sure to file a report of damage with your insurance agent immediately upon discovery (ask agent for copy of the damage report to the insurance company, for your records). DO NOT destroy the evidence of acreage with winterkill damage until authorized in writing by a loss adjuster.

Gene Gantz
RMA/USDA
(717-497-6398)

PA Crop Insurance Performance							
Year	Total Crop Policies	Protection In Force (\$)	Acres Insured	Total Premium (\$)	Farmer Paid Premium After PA Sub.	Losses Paid to Producers (\$)	Farmer Benefit per \$1 of Premium
99	7,005	110,996,708	609,052	6,863,407	2,323,363	22,470,052	9.67
00	11,602	162,210,837	941,218	11,681,648	3,931,058	6,474,594	1.65
01	11,822	186,790,076	978,658	13,962,714	3,854,986	18,176,779	4.72
02	13,985	222,088,649	1,119,972	19,010,537	5,732,528	63,841,658	11.14
03	15,265	258,382,174	1,144,492	32,055,728	7,003,514	27,574,951	3.94
04	16,196	283,387,736	1,173,502	32,632,646	10,622,054	12,921,253	1.22
94-03	95,162	1,269,361,233	7,402,996	106,732,927	31,990,640	162,922,131	5.09
81-03		1,486,361,313	8,831,752	122,454,653	43,736,540	186,608,024	4.27
99-03	59,679	940,468,444	4,793,392	83,574,034	22,845,449	138,538,034	6.06
99-04	75,875	1,223,856,180	5,966,894	116,206,680	33,467,503	151,459,287	4.53

Source: USDA Data as of 3/07/05

Reflects Est. PDA Cost Share

Est. for Educational Purposes

A New Harvest Strategy for High Quality Alfalfa

There has been an increasing interest in the use of western alfalfa hay for dairy rations. In most cases, the reason for this interest is the fact that western hay has been identified as having higher quality than most alfalfa grown in PA. There is nothing special about the alfalfa producers or soils in the west that makes their hay better. Rather it is the fact that these forage producers are able to harvest their alfalfa at the ideal time without the risk of poor drying weather. They simply turn off the irrigation.

Eastern producers are at the mercy of the weather and typical weather conditions in early May, when forage quality is the highest, is usually less than ideal. Another factor favoring western hay producers is that they do not plant corn. In the east, the conflict between getting corn planted and making hay often favors planting corn. All the preaching of getting corn planted early has caused forage quality to suffer.

Forage researchers note that quality quickly drops as alfalfa plants mature. Noticeable differences in quality can be observed every 2 to 3 days. It is estimated that each day of delayed harvest results in a decrease of 0.5% in crude protein; 0.7% increase in ADF and 0.9% increase in NDF. A great alfalfa stand testing 20/30/40 can become 17/34/45 in 5 days. The fact that first cutting alfalfa yields are usually one half of total yearly yields can quickly put many dairymen in search of good western hay.

One strategy for eastern alfalfa producers is to forget about waiting until late bud stage to start first cutting and to concentrate on forage harvest and not planting corn. If weather conditions do not favor alfalfa harvest at this later maturity then significant forage quality losses will result. In early May (5 -10) there is usually at least one period of 3 to 5 days of hay harvesting weather. Even if the alfalfa has not reached mid bud stage, an early harvest at this time will ensure high yields of excellent forage quality without the risk of losing this quality from delayed harvest. This will require a new mind set of parking the corn planters and concentrating on alfalfa.

Later harvest schedules will need to be managed to maintain stand persistence. Second cut can be taken on a 28 to 33 day interval and will ensure 2 excellent cuttings. Third and fourth cuts should be at 35 to 38 days or at first bloom. Later cuttings typically do not lose forage quality as rapidly as first cut but yields are not as high as first cut.

Producers may want to raise the cutting height (4 to 6 inches) for early cut stands as higher cutting heights may benefit rapid regrowth for second cut. Fall harvest, leaf hopper control and potassium topdress management will be important for early cut stands to ensure stand persistence.

If top quality alfalfa hay is a goal for you, consider taking advantage of any window of opportunity Mother Nature provides you. You may produce some forages that even the western hay producer would envy and your stands will not suffer if managed properly.

**Paul Craig, CCA
Forages**

Early Season Corn Problems

Every growing season is different and you never know what problems you will run into until they happen. Hopefully, many possible problems will have been prevented by good planning and execution of: soil fertility needs, pest problem prevention or control tactics, good planter maintenance, adjustment and operation. Also very important is having had good judgment in deciding when the fields were in the proper condition to till or plant. This is especially important in no-till planting systems to avoid shallow planting from poor penetration of hard, dry soils or poor seed slot closure from soil that is too wet.

"Every hybrid's maximum yield potential exists while it is still in the seed bag. After we plant it, that potential is at risk from every insect, disease, soil and weather problem that comes along."

As the crop begins to grow, it is important to make your best efforts to check fields early in order to observe problems right away. In some cases, such as some weed control failures or insect feeding, some rescue action can be taken. In other cases, early detection makes diagnosis of a problem possible before evidence of the cause of the problem, like seed corn maggot or rotted seed, disappears.

Diagnosing the causes of some problems can be difficult because 1) the symptoms often do not point to a specific cause, 2) problems often develop as a result of an interaction between two or more causes, 3) the severity of the problem is often greatly influenced by weather conditions. A good example of this is poor root growth. First, it may be hard to know just how poor a seedling's root growth is without a comparison with another, healthier plant. Some herbicides may inhibit root growth. But it may be that the soil was also compacted and also slows root growth. The combined effect of both things working together may cause a visual symptom greater than either one alone. These problems may not be critical under good, high fertility and adequate soil moisture that help the corn plant grow adequately with a smaller root system.

Look for patterns in the field. Streaks that run with the rows suggest application skips or overlaps. Problems on the ends, edges or in point rows may be related to compaction. If the cause is skips in lime application, a quick check with a Cornell soil pH kit is a very handy tool to have for checking this. Variability of soil texture from low spots to eroded knolls can explain differences that might affect pH buffering, or in a dry year, the

difference between a pop-up starter causing fertilizer burn or not.

When looking at a problem try to keep an open mind. Your first thought may not be correct. I remember looking at a field when the grower had his mind made up that the problem with his corn was herbicide carryover but turned out to be potassium deficiency. Sometimes, another person outside of the farm needs to be brought in to see things more objectively.

If you can't find the answer that really explains the problem, remember, you can always blame the weather!

John Rowehl, CCA
Grain Crops

Pest Briefings

Asian Soybean Rust Gaining accurate information of exactly where rust spores are located within the United States will allow growers to make more knowledgeable decisions of when and if their fields will need to be treated with a fungicide. This website offers a free monitoring service that will allow growers the opportunity to visit the site at any time to get a handle of where the rust is located as the season progresses.
<https://netfiles.uiuc.edu/ariatti/www/SBR/index.htm>

Alfalfa Weevils Many area alfalfa fields were left with more than 6 inches of growth going into winter. These fields provide the needed protection from wind and freezing temperatures and should be scouted for the presence of alfalfa weevils. By viewing the following website, producers can begin to see the activity of weevils beginning in April to determine the proper time to look for this pest in their fields.

http://www.ento.psu.edu/extension/field_crops/field_crop_home.htm

Winter Annual Weeds Ideal moisture conditions this past fall and winter has allowed many winter annuals to grow and begin competing with spring crops. These fields are also prone to egg laying and harboring of Black Cutworms. Many effective herbicides exist to eliminate these weeds. Burn down at least two weeks before planting to avoid cutworm problems. In addition, the forage value is low and if alfalfa is populated with winter annuals treatment is necessary to eliminate these quality robbing weeds. Visit this site for the most accurate spring weed identification guide.

<http://muextension.missouri.edu/explorepdf/regpubs/NCR614.pdf>

Scouting for Wheat Diseases Assessing wheat stands now is critical. Due to wet conditions, many fields may have been infected with water loving diseases and these can kill plants in areas or reduce stands to levels that crop rotation is required. In addition, leaf diseases will begin to show up as the season proceeds. Be sure to check weekly during these critical times. Visit this web site to gain more information on Scouting, fungicide use, and potential yield losses from diseases.

<http://agguide.agronomy.psu.edu/PDF03/part2-5-3.pdf>

Keeping Track of Moths Moth captures is an effective way to monitor the populations of corn borer, ear worm and cutworm populations. View this website for the Mid Atlantic Trap Captures to determine the need for pest management tactics. www.pestwatch.psu.edu

Cereal Rust Mite This mite attacks timothy fields throughout the winter months and into spring. Research suggests that three weeks after green up is the ideal to treat for the pest. The reason is related to the number of eggs and adults. If applications are made too soon the dormant eggs will hatch and cause damage. Waiting too long will result in yield loss. In southern parts of the region, about the middle of April is the ideal time to apply pest management options. Sevin XLR is the only labeled product presently available and legal to use.

Del Voight, CCA
Integrated Pest Management

Soybean Rust Control with Fungicides

With the recent discovery of soybean rust in the southern United States, many growers are interested in learning about the fungicide products available to control this potentially serious disease. Because variety resistance or tolerance to this disease is minimal, fungicides will generally be the first line of defense if the fungal spores arrive and weather conditions are favorable for disease development. The following is a brief summary of the products currently registered in Pennsylvania to control soybean rust.

Fungicides can be divided into "contact" and "systemic" products. Contact fungicides do not enter the plant cells, but form a protective barrier on the plant surfaces. They are considered protectant products only, in that they must be applied before the fungus infects the plant. Systemic fungicides can move into and redistribute within the plant tissues. Some "locally systemic" fungicides will only move within a treated leaf, leaving new growth unprotected. Other systemic fungicides will move throughout the entire plant. Some of the systemic fungicides have curative activity (e.g. triazoles), and can kill the fungus after it infects the plant. Others have little or no curative activity, and should be used as protectants (e.g. strobilurins).

Fungicides registered for use on soybean rust fall into three basic categories: triazoles, strobilurins, and nitriles. The triazoles, which include propiconazole (Tilt, PropiMax, and Bumper), myclobutanil (Laredo), tebuconazole (Folicur), and tetraconazole (Domark), are all registered in PA under Sec. 18 emergency exemption labels. They prevent sterol synthesis, which is important for producing fungal cell membranes, and have both curative and preventative activity. Because they are systemic in the xylem (water-conducting tissues), they can move within the treated leaf and upward in the plant.

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The strobilurin fungicides (Quadris and Headline) have full federal labels for soybeans and act to stop energy production in the fungus. They are mostly protectant fungicides, preventing spore germination and infection. They are locally systemic in the treated leaf, and can move from one side of the leaf to the other, giving protection to both sides. These products should be used before soybean rust is found in the immediate area.

Some products are premixes of triazoles and strobilurins, and include Stratego (tebuconazole + trifloxystrobin), which is registered in PA under Sec. 18 emergency

exemption. These products provide two modes of action and will help prevent development of resistant strains of the fungus.

The nitrile fungicide products registered for soybean rust all contain the active ingredient chlorothalonil. Specific products are Bravo Weatherstik, Bravo Ultrex, and Echo 720. These are contact (non-systemic) fungicides and act as a protectant, and will probably provide suppression of soybean rust at best. The following table summarizes the information.

Product	Active ingredient	Chemical class	Mode of action	Mobility in plant	Type of activity
Quadris	azoxystrobin	strobilurin	stop energy production	locally systemic	preventative
Headline	pyraclostrobin	strobilurin	stop energy production	locally systemic	preventative
Folicur	tebuconazole	triazole	prevent sterol production	xylem systemic	preventative + curative
Laredo	myclobutanil	triazole	prevent sterol production	xylem systemic	preventative + curative
Tilt	propiconazole	triazole	prevent sterol production	xylem systemic	preventative + curative
PropiMax	propiconazole	triazole	prevent sterol production	xylem systemic	preventative + curative
Bumper	propiconazole	triazole	prevent sterol production	xylem systemic	preventative + curative
Domark	tetraconazole	triazole	prevent sterol production	xylem systemic	preventative + curative
Stratego	tebuconazole + trifloxystrobin	triazole + strobilurin	prevent sterol and energy production	xylem systemic	preventative + curative
Bravo Weatherstik and Ultrex	chlorothalonil	nitrile	several sites	contact only	preventative
Echo 720	chlorothalonil	nitrile	several sites	contact only	preventative

Capital Region Cooperative Extension Offices

Adams (717) 334-6271
 Cumberland (717) 240-6500
 Dauphin (717) 921-8803
 Franklin (717) 263-9226
 Fulton (717) 485-4111
 Lancaster (717) 394-6851
 Lebanon (717) 270-4391
 Perry (717) 582-5150
 York (717) 840-7408

Landisville Research and Extension Center, Lancaster County (717) 653-4728

Capital Region Agronomy Team Extension Educators

Paul Craig, Forages
 Dauphin County
 Phc8@psu.edu

Bill Ferris, IPM
 Fulton County
 bferris@psu.edu

Mark Goodson, Soils
 York County
 Mwgl@psu.edu

Dave Johnson, Director
 Landisville Research and Extension Center, Lancaster County
 Dhj3@psu.edu

John Rowehl, Grain
 Cumberland County
 jrowehl@psu.edu

Del Voight, IPM
 Lebanon County
 Dgv1@psu.edu

Jere Wingert, Agronomy
 Franklin County
 Jlw261@psu.edu

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