Cooperative Extension: Colorado State University, Fort Collins, Colorado 80523

Pest Alert

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The Pest Alert is now found on the World Wide Web at http://www.colostate.edu/programs/pestalert

SEPTEMBER 25 VEGNET REPORT

During the third week of September - 2000, rainfall totals (inches) varied from less than 0.25 on the west slope and western Kansas to 1 - 2 inches throughout eastern Colorado, eastern Wyoming and western Nebraska. Average daily high temperatures were 25 to 30 degrees F lower than the previous week.

The regional weather forecast predicts average to above average rainfall and above average temperatures for this time of the year at all locations, except for the west slope with below average moisture potential for the last week of September.

POTATO
As of September 25, 2000 there were still no reports of late blight in the region. Incorporate harvested debris after harvest to reduce the carryover potential of potato pests that could overwinter and threaten adjacent plantings in 2001.

DRY BEAN
Incorporate harvested debris after harvest to reduce the carryover potential of dry bean pests that could overwinter and threaten adjacent plantings in 2001.

ONION
Incorporate harvested debris after harvest to reduce the carryover potential of onion pests that could overwinter and threaten adjacent plantings in 2001.

Harvest and curing practices should emphasize well-cured, dried tops and bulbs in the field and in storage. This will reduce contamination of exposed neck surfaces, and moisture which is needed by fungal and bacterial pathogens for colonization and infection of onion necks, shoulders and basal plates. Continue curing in the shed with ambient temperature and lots of air movement.

Note: frozen onions (exposed to low to mid 20s for extended periods) should not be removed from the field until after extended thawing and drying to minimize bruising of water-damaged tissues. (Schwartz)

OCTOBER 2 - FINAL VEGNET REPORT

During the last week of September - 2000, rainfall totals (inches) varied from 0 throughout most of the region to less than 0.18 on the west slope and 0.37 inches at Wray. Average daily high temperatures were upper 70s to low 80s.

The regional weather forecast predicts below average rainfall on the west slope and above average rainfall elsewhere in the region for the first week of October. Temperatures will be average for this time of the year at all locations.

This is the final report from VegNet - 2000. Good luck with the marketing year, and we look forward to working with you and your Integrated Pest Management programs during 2001.

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NEW YORK GOVERNOR SIGNS PESTICIDE LAW

The pesticide law requires companies that use pesticides to give at least a 48-hour warning to neighbors living within 150 feet of any spraying site. It also requires schools and day care facilities to provide parents and staff with a notice before pesticides are applied on school grounds. Gov. George Pataki signed the bill, which advocates say is the nation's first law of its kind. The neighbor notification law goes into effect March 1, 2001. "Every neighbor will now know to take in the wash, close the windows, and not have the kids roll around in the yard," Pataki said.

Notices must contain information regarding the date and location of applications, as well as the name of the product being applied. The law allows exemptions for more than 30 specific types of pesticides with a low toxicity, such as boric acid and horticultural oils, and for pesticide applications to cemeteries and spot treatments of less than 9 square feet. At least seven states allow residents to register with the state if they want to be notified about pesticide spraying near their home, but New York will become the first to require residents of adjacent properties to be warned ahead of time.

In Colorado individuals with Pesticide Sensitivity must register with the Colorado Department of Agriculture. Colorado licensed and registered applicators must attempt to notify the registered individuals at least 24 hours before any turf or ornamental pesticide applications are made to any property abutting the sensitive individuals. This notification may be by mail, phone, or in person. If the applicator is unable to notify the sensitive individual 24 hours before the application, he or she will attempt to notify them immediately before the application of pesticides. If the applicator is still unable to notify the individual, he or she must leave notice on the door of the residence telling of the application and attempts to notify the individual. (McDonald)

EPA AND USDA ANNOUNCE AGREEMENT IN WHICH AVENTIS CROPSCIENCES WILL BUY STARLINK CORN

On September 29, 2000, the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA) reached an agreement with Aventis CropSciences in which the company agreed to purchase this year’s crop of StarLink corn. This action is a prudent and responsible step to prevent the current crop of StarLink corn from being used in processed foods. These measures provide consumers with additional confidence in the integrity of the food supply by implementing a rigorous purchase and tracking program. StarLink corn is only approved for animal feed and was recently found in processed foods. The action immediately prevents StarLink corn from being used in any food manufacturing. It also guarantees that farmers who planted StarLink corn are reimbursed for this year’s crop.

The agreement will be implemented by USDA, EPA and FDA. Aventis has already contacted farmers with instructions on how to handle the 2000 StarLink crop. USDA will initially purchase the corn from the farmers, handle the corn to ensure that it does not enter the food supply, and then Aventis will reimburse USDA for the cost. (McDonald)

EPA TO ANNOUNCE AGREEMENT TO PHASE OUT ETHYL PARATHION

EPA intends to sign an agreement with Cheminova, the primary registrant for ethyl parathion that would result in a complete phaseout of this chemical over three years. Cheminova has signed the agreement.

EPA's revised risk assessments, based on the best available data, show that ethyl parathion poses serious risks to workers and wildlife. Cheminova has decided not to develop the data that would be required to support reregistration.

Under this agreement, treatment of corn grown for seed will end immediately, while other uses will be allowed until October 31, 2003. (Other registered uses of ethyl parathion are on alfalfa, barley, corn, canola, cotton, sorghum, soybean, sunflower, and wheat.) Technical grade ethyl parathion can no longer be imported into the U.S. Registrations of ethyl parathion used to manufacture end-use pesticide products will be canceled effective immediately. End-use products will be canceled effective December 31, 2002, and sales and distribution by registrants also are to be stopped by December 31, 2002. All sales and distribution are to be stopped by August 31, 2003. EPA expects existing stocks of ethyl parathion to be largely depleted during the 2002-growing season. Ethyl parathion is primarily used in Arkansas, Colorado, Georgia, Kansas, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, Tennessee, and Texas. For more information contact Laura Parsons, SRRD, 703-308-5776. (McDonald)

INDOOR USE OF DIAZINON WILL NOT BE SUPPORTED

Novartis will not support indoor uses for diazinon. The EPA informed the company that additional data would be required to maintain indoor uses. Novartis decided that these registrations would not be worth the research investment. The company’s decision will eliminate uses in greenhouses, residential settings, commercial buildings, hospitals, schools, museums, sports facilities, stores and, warehouses. Novartis and EPA will meet to discuss the terms and timetable for the ‘voluntary’ cancellation. Read the details at www.cp.us.novartis.com/diazinon

NEW BROCHURES ENCOURAGE PESTICIDE USERS TO "READ THE LABEL FIRST!"

As part of its new consumer campaign, EPA, in cooperation with its partners, has released four new brochures to encourage consumers to "Read the Label First!" before using pesticides around their homes and gardens. This campaign is a component of the Consumer Labeling Initiative (CLI), a public-private partnership intended to improve the clarity and presentation of product labels, thereby preventing misuse and potential exposures and enhancing the protection of human health and the environment. Four new brochures inform consumers of why they should "Read the Label First":

- Protect Your Kids (EPA 740_F_00_001) informs parents of the importance of following label instructions and precautions to protect children's health and safety, as well as common sense practices such as storing products out of the reach of children;

- Protect Your Pet (EPA 740_F_00_002) informs pet owners of how following label instructions and precautions can help protect pets such as dogs and cats from unnecessary exposure to pesticides;

- Protect Your Garden (EPA 740_00_003) informs home gardeners of tips they can use for selecting and using products for their plants, flowers, and lawns, thereby protecting their gardens as well as their families, pets, and the environment;

- Protect Your Household (EPA 740_F_00_004) informs consumers of the importance of reading labels on household cleaners and pesticides and tips to protect their families, pets, and the environment.

These brochures are now available through the National Service Center for Environmental Publications (NSCEP). You can order them without charge:

1. By phone: 513-489-8190 or 1-800-490-9198
2. By fax: 513-489-8695
3. By mail: NSCEP, P.O. Box 42419, Cincinnati, OH 45242
4. On their web site: http://www.epa.gov/ncepihom (McDonald)

WHAT CAN BE DONE TO CONTROL CHEATGRASS AND DOWNY BROME IN WINTER WHEAT?

If rainfall patterns in your area have been favorable for germination and early fall growth of cheatgrass or downy brome in emerged winter wheat, there is help available in the form of Maverick, a new herbicide from Monsanto.

What is Maverick? Maverick is a sulfonylurea herbicide from the same family of chemistry as Ally, Amber, Finesse, and Glean. Maverick has both soil and foliar activity on susceptible weeds.

When and how should Maverick be applied? Maverick can be applied in winter wheat one time per year at the maximum use rate of 2/3 of an ounce of product per acre. Maverick should be applied with a non-ionic surfactant at the rate of 0.5% v/v (2 quarts per 100 gallons of spray solution). Some rainfall after application often helps provide best control. Best control of cheatgrass and downy brome in Colorado has generally occurred with early fall applications when the weeds are emerged to perhaps the 2 leaf stage. Although Maverick can be applied in the spring, control can be less reliable and by then some wheat yield loss has already occurred. A CSU timing study with Maverick done over 2 years confirmed that under Colorado conditions, early fall applications (through mid to late November) of Maverick provided best weed control. Under ideal conditions, cheatgrass and downy brome control can range from 90 – 100%.

Rotational crop issues. Within one year following a Maverick application, spring or winter

wheat can be safely planted. Other crops require a field bioassay per guidelines laid out in the Maverick label. A copy of the Maverick label can be found in the C&P Press Green Book which is available on the web. (Westra)

SNOW MOLD SEASON IS COMING

Well we just finished establishing our snow mold trials in the mountains this week and it reminded me to make some comments about snow molds in turf for the Pest Alert audience. First and foremost snow mold diseases are not problems that homeowners and most recreational turf managers need to be concerned with in the Front Range and on the eastern plains. Generally there is little damage sustained by turf from these unique fungi at the lower altitudes. That which does show in the spring when the snow cover thaws can usually be cleaned up with a bow rake and a small amount of fertilizer.

On the other hand golf course managers can have problems, especially on the greens and tees which are intensely managed and more vulnerable to attack and permanent damage. In theses instance preventive snow mold treatments are generally used.

The trials we established this week are my 20th season of snow mold trials. Over the years we have evolved from the use of mercury compounds and PCNB, once the industry standards, to the testing of a wide array of traditional and new fungicides and combinations of materials. The one constant component that appears in all of our best performing treatments is still PCNB. It is really amazing that this material that has been with us so long is still an effective component in preventive management of snow mold fungi. While it's major benefit is against the gray snow mold fungi it has some impact on the pink snow mold fungi that is enhanced when used with systemic like propoconizole or thiophanate based materials. This is of course nothing new to golf course professionals, most of who already have their winter programs out or underway.

But along with preventive chemical use in the golf industry it is critical to recognize that a lot can be accomplished by cultural practices that minimize snow mold damage. Some of these are especially helpful in landscape turf situations. These are:

- Minimize late season growth
- Make the last cut a short one (1-2 inch) and pick up the cuttings
- Use slow release nitrogen
- Do not have a lot on matted leaf and debris on turf going into snow cover
- Enhance drainage and air movement
- Minimize shaded areas

These and other cultural tactics will bring your turf out of the winter in good shape and in landscape and home turf are all that is needed.

Under Colorado conditions there is no need for preventative snow mold fungicides on home and landscape turf in the Front Range and eastern plains. (Brown)

TURF SEED ECOTERRORISM ATTACK IN OREGON

Attacks on research and production sites of genetically enhanced plants are becoming painfully frequent and are not limited to just food crops. A recent attack on a well-known turf-grass seed producer resulted in considerable damage and a letter left by the "eco-terrorist" group.

As scientists, farmers, and agri-professionals of all kinds these extreme reactions seem preposterous. However, it's important for us to realize the strong reaction that these extremist factions have to biotechnology. I recently received a copy of the correspondence from the group responsible for the Oregon attack to the victim of their nighttime raid. The group called itself the Anarchist Golfing Association (AGA).

Here is the letter they left.

“Fore! Greetings from the grass seed region of the world.

Last night, the Anarchist Golfing Association (AGA) held its first ever Nocturnal golfing tournament at (Company name deleted by me) research facilities. In just under 16 strokes, the AGA notched up a few birdies and a hole-in-one as we tore up large areas of PST's profit-driven experiments with biodiversity.

Pure Seed Testing is a grass breeder and developer of genetically engineered (GE) grasses with U$DA permits for Creeping Bentgrass resistant to the toxic herbicide glufosinate.

These GE grasses are grown (according to company information) for golf courses, putting greens, croquet and athletic fields. The biotech industry usually hides behind the racist aura of "feeding the Third World," but as you can see, it is quite obvious that these crops are grown for profit and the pleasure of the rich and have no social value (i.e. better, weed-free putting greens for your local corporate exec).

Grass, like industrial culture, is invasive and permeates every aspect of our lives. While the golf trade journals claim that "golf courses provide suitable habitat for wildlife", we see them as a destroyer of all things wild.

Just last week, a German researcher released a study that showed that transgenic traits can flow between species--in this case, bacteria in the gut of pollinating bees and GE canola. This study wears down the industry propaganda that GE is safe and that these experimental releases of mutated organisms have no harmful ecological impact.

In a 1997 Environmental (Economic?) Assessment prepared for PST, there are arrogant and ignorant statements made that their use of simple five-foot pollen barriers (of cereal rye) would somehow prevent the cross-pollination of trans-genic traits from their GE trials into the environment. In light of the German experiments and the multitude of cases of genetic pollution worldwide, we find it hard to believe that the pollen in these experiments and others will not jump simplistic rye barriers. Once again, the convenient blinders of the researchers, corporations, the biotech industry and capitalism rear their ugly heads.

The final tally for the night? Two research greenhouses had hundreds of experimental grass pots/flats overturned, stomped and ripped up. Seven research plots of non-native, invasive grass species were pulled up, ID tags/flags were scattered, hundreds of stakes were pulled or rearranged and insightful messages were left behind. PST's sign was modified to read "GE Seed Testing" as greenhouses cheered us on with slogans like "PST-Growing GE Grass for the Rich" and "Nature Bites Back". Golf balls with circle A's (international anarchist symbol) and the letters AGA embossed on them were scattered on the site along with cute AGA golf figurines in trashed greenhouses and experimental grass plots.

If there is any doubt in anyone's mind, let us make it clear: The United States Department of Agriculture (USDA) + Animal Plant Health and Inspection Service (APHIS) = the biotechnology and industrial ag industries + ecological destruction. For laughs and outrage, please see the attached "environmental" assessment.

Golf season is upon us...This is a call to FARMS!

For Wild Nature,

The Anarchist Golfing Association (AGA)"

And there you have it. While I do not want to give publicity to this kind of group, it is important to know that they exist. Just think, this may have been your production unit or my student's thesis (please note that I do not work with biotech turf) or even your home lawn. While we are obligated to enter into scientific discourse and freedom of speech we do not have to tolerate breaking the law, destruction of property, and attempts to intimidate us. As educators, producers and researchers we need to be aware of the facts and take every opportunity to communicate them to everyone we can. (Brown)

THE GREAT TACO SCARE

In keeping with my comments above, I subscribe to the Kansas State University (KSU) Ag Biotech mailing list that I have mentioned before in the Pest Alert. I recently received the following from Bob Bowden, the extension plant pathologist at KSU and wanted to pass it on to you.

It is an open letter about the recent contamination problem of taco shells with the Cry9c protein. Bob points out that the letter was written by Dr. Taylor (address at the end) and posted and archived on the AgBioView listserver. Dr. Taylor is probably the world's leading scientist on the allergenicity of genetically modified crops.

AgBioView - http://www.agbioworld.org; Archived at
Date: Mon, 25 Sep 2000 17:53:06 -0500
From: sltaylor@unlnotes.unl.edu
Subject: Cry9c

“To whom it may concern:

As past Chair of an international panel of scientists formed to develop a model approach to assessing the safety of genetically modified foods, I am concerned that the recent incident with taco shells and unapproved corn may not have been fully understood by the public or the food industry.

First, I must say that I was dismayed that a product was allowed on the market for animal feed use when it had not been approved for human food use. I believe that was a mistake, however I do not believe there has been any risk to the public. The corn in question, StarLink Bt corn developed by Aventis, is the only product among about 40 genetically modified crops on the market that has not been approved for use in human foods. All biotech crops on the market today have been assessed by the Food and Drug Administration, the Environmental Protection Agency and the Department of Agriculture. The protocols followed by those agencies ensure that any product approved for food use has passed all tests for substantial equivalence and for the safety of the newly introduced gene(s) and proteins and should therefore be considered as safe as its conventional counterpart.

StarLink, which contains a protein from the *Bacillus thuringiensis* (Bt) bacterium, was not approved for food use because the product did not pass all screens for allergenicity. The Bt protein in StarLink, Cry9C, does not resemble known allergens, so in fact it may not be an allergen. However, Cry9C was not immediately broken down in digestion tests. Because most food allergens are not readily digested, EPA wanted more data before concluding that the protein would not become an allergen. On this basis, the agency was correct in denying the food use. Other Bt products on the market contain a Cry1 protein, which is digested in a matter of seconds and has passed other screens for allergenicity. Furthermore, Cry1 proteins have been present in foods via Bt sprays used by organic farmers for many years.

Kraft Foods, which did the right thing in recalling its taco shells when StarLink DNA was discovered, has specifically recommended to regulators that no future products be allowed on the market with a feed-only restriction. Biotech companies will almost certainly comply voluntarily to avoid further incidents, so this should be the last time this happens.

But was the public at risk because of this incident? I believe not. In order for people to become allergic to a protein they must be exposed to it multiple times over an extended period until they become sensitized. The protein must also be present as a relatively high percentage of total protein content. Most allergenic proteins are present at levels of 1 to 40 percent. Aventis indicates that the Cry9C protein is present in corn kernels at 0.3 percent, but the taco shells would contain far less due to the presence of other varieties of corn and the use of other ingredients. It is highly unlikely that Cry9C protein would be present in any corn products at a level of concern.

It is important to understand that only a very small amount of StarLink corn was planted, about 300,000 acres among the nearly 80 million corn acres in the United States (0.3 of a percent). That small amount could conceivably be produced by only 100 large farms. Because of the feed-only restriction, nearly all would have been properly channeled to feed operations, but even if the production from one or two farms was improperly channeled, there would be only a few thousand acres to be co-mingled with other grain. This clearly would not

produce protein levels of any health concern.

It is unfortunate that this incident has sent a negative message to consumers because I believe that U.S. regulatory procedures ensure that any genetically modified crop approved for food use is as safe as its conventional counterpart. StarLink is the only product not approved for food use, and we can almost certainly expect that it will be the last."

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So what else is in your taco shell? In an article from Business World: ***Eek! Attack of the Perfectly Harmless Tacos!*** ---- By Holman W. Jenkins Jr., carried by the Wall Street Journal via Dow Jones, he pointed out that in “every 50 grams of cornmeal (the primary ingredient in tacos) the FDA will allow one 'whole insect', 50 insect fragments, two rodent hairs, or one 'rodent excreta fragment'. Similar standards apply to other foods such as macaroni, a package of which may contain 225 insect fragments and 4.5 rodent hairs per 225 grams”.

Let’s get real people - how about your hamburgers and catsup! (Brown)

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Where trade names are used, no discrimination is intended, and no endorsement by the Cooperative Extension Service is implied.

Sincerely,

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Extension Plant Pathologist