



# Pest Alert

Vol. 18 No. 13

August 17, 2001

**NOTE: BEGINNING JANUARY, 2001, PEST ALERT WILL ONLY BE AVAILABLE ON THE WEB. FOR ELECTRONIC NOTIFICATION, PLEASE EMAIL YOUR ADDRESS TO [bspm@lamar.colostate.edu](mailto:bspm@lamar.colostate.edu). (Check out our complete web site!)**

**POTATO UPDATE (P 1)**

**ONION UPDATE (P 2)**

**DRY BEAN UPDATE (P 2)**

**EPA WEB SITE ON CUMULATIVE RISK ASSESSMENT (P 3)**

**VOLUNTARY PESTICIDE RESISTANCE MANAGEMENT LABELING GUIDELINES (P 3)**

**CORN SMUT MAY BE TASTY BUT IT WILL NOT GET YOU HIGH! (P 3)**

**STALK ROT SAMPLE COLLECTION (P 4)**

**PLANT CLINIC CLOSED AUGUST 24 TO AUGUST 29 (P 4)**

**PLANT CLINIC HOURS (P 4)**

**DROUGHT/HEAT STRESS (P 5)**

## POTATO UPDATE

August 13, 2001 UPDATE: There are still no confirmed reports of Late Blight in our region. The only threat at this time would come from long-distance spore showers blown in from some other potato region if and when disease starts there; however, there are no reports of Late Blight anywhere in our multi-state high plains region. See Pest Summary at <http://www.csuag.com>

Maintain the protectant fungicide program for Early blight on a weekly basis with products which include EBDCs (maneb, mancozeb, Penncozeb, Dithane, Polyram), Bravo/Equus, SuperTin, Quadris with an adjuvant if recommended on the fungicide label.

Last week's weather was cooler with some moisture throughout eastern Colorado. Average moisture with average high temperatures are forecast for eastern Colorado this week. Scout fields and continue an aggressive program with your protectant fungicides until vine kill.

Most of the mid-season fields are near or in harvest. Remember to achieve good vine kill, and allow the vines to dry for a couple of weeks prior to harvest to reduce tuber contamination by spores (especially of Late Blight if it should occur in your field).

### **ONION UPDATE**

August 13, 2001 UPDATE: Purple Blotch forecast models are well above the threshold level of 300 throughout Colorado, so scout aggressively for early signs of disease. The disease was confirmed on seeded onions from all onion areas during recent weeks. Aggressively scout fields and initiate protectant programs. There are still NO reports of Downy Mildew on transplanted or seeded onions, but a fungicide program may be beneficial as cooler weather conditions occur during mid August.

Effective fungicides for Purple Blotch and Botrytis include Bravo, EBDC (maneb, mancozeb, ManKocide, penncozeb, Dithane), and Ridomil package mixes (with EBDC, copper, Bravo/Equus). Bravo/Equus, ManKocide and EBDCs are protectants that may have to be applied every 7 - 10 days, while the Ridomil provides protection against Downy Mildew for 14 days or longer in the threat persists. The EBDC and Bravo/Equus products, Quadris and Rovral are effective against Purple Blotch. Quadris and Rovral will provide extended protection for more than 7 – 10 days. Add an adjuvant if recommended on the fungicide label to improve plant coverage.

Bacterial soft rot and other bacterial diseases are present in most fields throughout Colorado, and you should include a copper-based bactericide (Champ, NuCop, Kocide, ManKocide, etc) plus EBDC and adjuvant as older transplants begin to bulk up. Our research has shown that the addition of an EBDC fungicide (high labeled rates after bulbing) provides more control of bacteria from the copper. As onions continue to increase bulb size, the bacterial disease complex will become more prevalent until cropping.

Most transplanted fields are now harvested or in the final stages. Remember to cure transplanted and seeded onions before and/or after topping to reduce disease spread, especially of Bacterial Soft Rot, Black Mold and Botrytis. Use air curing in the storage shed to further dry out the exposed neck and outer, soft scales.

### **DRY BEAN UPDATE**

August 13, 2001 UPDATE: There are no reports of bean rust in the region. When rust is confirmed in new crop fields this year, fungicide options include Maneb/Manex (30 day preharvest interval), Bravo (14 day interval), and Tilt (28 day interval); Tilt will have a Section 18 label for 2001 in Colorado until August 31. Aggressively scout new crop fields for evidence of early development by rust before implementation of pesticide programs. Monitor COAGMET weather patterns and pest forecast models, and share pest sightings with VEGNET personnel.

There are widespread reports of bacterial diseases in eastern Colorado. Aggressively scout fields and continue the protectant program with copper bactericides through flowering and early pod set, until 2 – 3 weeks preknifing. Bacterial disease management with copper-based bactericides such as Champ, Kocide, and NuCop should be initiated as a preventive program at 30, 40 and 50 days post-planting. Add an adjuvant if recommended on the bactericide label. Initiate or continue copper sprays on hail-damaged fields of beans; wait a

few days if more than 50% of the canopy was stripped by storm damage to allow new growth to emerge and benefit from the protection. Do not use sulfur-based products as curatives for wounds, sulfur will just burn tissue and act as a defoliant at high rates; wounded tissue will dry out naturally and not be a further disease threat to surviving tissue.

Late fields with a history of white mold should be managed by the timely application of appropriate fungicides such as Topsin at 100 % flowering (every plant with 1 or more open blossoms) to full bloom. The objective is to get the fungicide on to flowers to protect them from being colonized by fungal ascospores on the soil surface and within the plant canopy. Fungicide coverage and penetration into the canopy are critical; 25 – 30 gal/A with a ground rig, 10 gal/A by air, and less than ¼ inch/A during chemigation. Irrigation management with extended intervals between applications can keep the soil surface and plant canopy dry without stressing pod set and seed fill and reduce losses from white mold.

### **EPA WEB SITE ON CUMULATIVE RISK ASSESSMENT**

EPA has posted a new web site to provide background information and status on cumulative risk assessment of pesticides that have a common mechanism of toxicity. Through cumulative risk assessment, EPA will be able to consider whether the risks posed by a group of pesticides that act the same way in the body meet the current safety standard of "reasonable certainty of no harm" brought about by the Food Quality Protection Act (FQPA) of 1996. Pesticides that meet this standard may successfully complete tolerance reassessment under the Federal Food, Drug, and Cosmetic Act (FFDCA), now closely intertwined with reregistration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

EPA has developed a framework for conducting cumulative risk assessments for the organophosphates (the first group to undergo a cumulative assessment) and other pesticides that have a common mechanism of toxicity. The site lists ways for the public to get involved in the process and has a page that will provide information on other groups of pesticides that are proposed for cumulative assessments. The URL is <http://www.epa.gov/pesticides/cumulative/>. (McDonald)

### **VOLUNTARY PESTICIDE RESISTANCE MANAGEMENT LABELING GUIDELINES**

The EPA Office of Pesticide Programs has announced a purely voluntary pesticide resistance management labeling guidelines for agricultural uses of herbicides, fungicides, bactericides, insecticides, and acaricides. The resistance management labeling guidelines are based on mode/target site of action for agricultural uses. These guidelines are the result of a joint effort of the U.S. and Canada under the North American Free Trade Agreement (NAFTA). EPA believes this approach is an important element of international harmonization. To view the document see [http://www.epa.gov/opppmsd1/PR\\_Notices/pr2001-5.pdf](http://www.epa.gov/opppmsd1/PR_Notices/pr2001-5.pdf). (McDonald)

### **CORN SMUT MAY BE TASTY BUT IT WILL NOT GET YOU HIGH!**

Boy "ain't" those newspaper guys something! The Denver Post recently had an article about corn common smut. While it is great, from a plant pathologist's view, to have the media interested in plant diseases it is a little frustrating when the writer quotes some produce

manager in a grocery store as saying that corn smut is hallucinogenic. Wow where did he get that from? That is not even a good rumor. I have heard many a whopper, but this is the first time for this one. There is no data, or even discussion of common smut having such traits. It is wrong, wrong, wrong.

The article was discussing why there appears to be more common smut around this year. But as far as we can tell there really is no more than usual. It is just that it is so distinct and easily visible that many non-agricultural people (like newspaper writers) can see it and it seems out of place. But it is very common (i.e., hence the name "common smut") and we have no data to support that there is any more or any less this year.

There is some fun discussion in the article about the production of common smut in Mexico for the specialty food market. The article wonders why U.S. growers do not produce smut for the processing market as the Mexican growers do. Actually it is a very tedious and labor intensive production and would unlikely be economically feasible in the U.S. with our high cost of labor.

So if you plan to try your hand at some tasty smut make sure you get it while it is still green, because it is really "yucky" as my kids used to say, when it matures and gets black. But do not expect to have great visions or be able to "fly". (Brown)

### **STALK ROT SAMPLE COLLECTION**

Stalk rot samples from Extension Agents, Crop Consultants, etc. to further research efforts are needed. Samples can be sent to the Plant Diagnostic Clinic, Attn: Tamla Blunt or Dr. Bill Brown, Colorado State University, Fort Collins, CO 80523-1177. Information as to where the crop was collected (grown), variety (if known), irrigation practices and any other information that you feel would be pertinent would be appreciated. Please be sure to provide your name and address information if you would like to be sent a copy of the culture results. (Tamla Blunt, Diagnostician)

### **PLANT CLINIC CLOSED AUGUST 24 TO AUGUST 29**

The plant clinic will be closed August 24 through 29 while the staff attends the annual meeting of the American Phytopathological Society in Salt Lake City. This is the annual gathering of plant pathologists from throughout the U.S. and some from abroad as well. Tamala Blunt, Brent Swan and Dr. Brown will all be presenting posters and attending the sessions.

Please do not send any plant specimens to the clinic immediately before and during this period. We will be back in the clinic on August 30 and doing business as usual. Thank you for your cooperation and patience. (Brown)

### **PLANT CLINIC HOURS**

The start of classes is again upon us at the University. This being the case, the Plant Diagnostic Clinic hours of operation will vary. Your best bet is to call and leave a message and we will get back to you with a time and location that you can drop a sample.

Alternatively, you can always mail it to the Plant Diagnostic Clinic, Attn: Tamla Blunt, Colorado State University, Fort Collins, CO 80523-1177.

This semester is shaping up to be quite busy with classes, teaching and research but will do my best to get back with you in a timely manner regarding your sample. As always, you can contact Dr. Bill Brown at 970-491-6470. (Tamla Blunt, Diagnostician)

## **DROUGHT/HEAT STRESS**

We are still seeing quite a few samples in the clinic with drought/heat stress. Dave Leatherman (State Forest Entomologist) had a great note on pestserv about a month ago regarding the weather cycles and what we are seeing this year. His point is that we have been in a 4-5 year drought, with above normal temperatures (especially in the winter), and below average snow. The winter of 2000-2001 was more normal than several winters immediately preceding it.

The summer of 2000 was very hot and dry. Many trees were stressed prior to this year, but they are just now showing symptoms. This summer, the last frost/freeze date was approximately June 13 (depending on the area in which you live). These early/late frost/freezes will stress trees. Early frosts on unhardened conifers during August and September cause bark damage, needle injuries, and discoloration. Late frosts (spring) are common everywhere. If they occur after bud burst, they damage the very susceptible newly flushed shoots. Species susceptibility to late frosts varies geographically. Symptoms can range from frost rings to pale green needles on bent shoots to death of the current year's shoots. Winter desiccation or winter drying caused by water loss due to continuous wind and lack of moisture occurs slowly, so symptoms are not noticeable until the majority of the tree has been affected (APS Compendium of Conifer Diseases).

This leads us to the topic of heat stress and leaf scorch, which is also climate related. Symptoms include the leaf veins remaining green and the tissue in between turns brown and brittle. Leaves may turn brown from the outside edges inward. Affected leaves may drop or remain attached. Occasionally, leaves on one side of a tree or shrub show symptoms, while the rest of the tree looks normal. Scorch is often blamed on insufficient water uptake, but other situations may play a role in its expression. Any factor that damages roots (construction activities, compacted soil, improper planting, excessive fertilization, and mechanical trunk injuries, to name a few) can induce scorch symptoms since poorly functioning or non-functioning roots cannot absorb water well. Situations that produce scorch symptoms include those where water is available, but plants are unable to keep up with the water loss (Insects and Diseases of Woody Plants, 2000). (Tamla Blunt, Diagnostician)

## **CONTRIBUTORS**

**K. George Beck**, Extension Weed Specialist, Perennial and Range (970) 491-7568;  
gbeck@lamar.colostate.edu

**William M. Brown**, Extension Plant Pathologist, IPM and General (970) 491-6470;  
wbrown@lamar.colostate.edu

**Whitney S. Cranshaw**, Extension Entomologist, Urban and Horticulture (970) 491-6781;  
wcransha@ceres.agsci.colostate.edu

**Sandra McDonald**, Extension Specialist, Environmental and Pesticide Education (970) 491-6027;  
smcdonal@lamar.colostate.edu

**Scott J. Nissen**, Extension Weed Specialist, Row Crops (970) 491-3489;  
snissen@lamar.colostate.edu

**Frank B. Peairs**, Extension Entomologist, Field Crops (970) 491-5945;  
fbpeairs@lamar.colostate.edu

**Howard F. Schwartz**, Extension Plant Pathologist, Row and Vegetable Crops (970) 491-6987;  
hfspp@lamar.colostate.edu

**Philip H. Westra**, Extension Weed Specialist, Row Crops (970) 491-5219;  
pwestra@ceres.agsci.colostate.edu

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

Sincerely,

*William M. Brown, Jr.*  
**William M. Brown, Jr.**  
Extension Plant Pathologist