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

Pest Alert

Vol. 16 No. 18 August 27, 1999

AUGUST 30 VEGNET REPORT
STRESS CAUSES FALL COLOR TO COME EARLY IN MANY PLACES AUGUST HARD COPY ISSUES DELAYED BECAUSE OF SERVICE SCREW-UP!
FALL IS A GOOD TIME TO MANAGE NOXIOUS WEEDS

AUGUST 30 VEGNET REPORT

During the last week, daily high temperatures averaged in the upper 80s to low 90s at most sites in the region, except for Center in the upper 70s. During the last week, rainfall averaged less than one-quarter inch at Avondale, Center, Delta, Grand Junction, Rocky Ford, Yuma, Champion, Garden City and Tribune; while Ault, Dove Creek, Fort Morgan, Kersey, Alliance, Sterling and Torrington averaged more than one-half inch. More than 1.25 inches of rain fell at Burlington, Wray, and Scottsbluff. The upcoming week is forecasted at below average moisture in western Kansas, above average moisture in southwestern Colorado, and average moisture at the remaining sites. Above average temperatures are forecasted for the upcoming week at all sites.

Continue to scout late crops at least weekly for evidence of pest activity. Check with your local consultants and other experts on crop status and the initiation or maintenance of disease protection strategies when either disease is confirmed in the nearby region and/or a disease threat does exist. Remember to rotate fungicide chemistry when possible to avoid selection of fungicide-resistant strains.

DRY BEAN Pests:

As of August 30, the dry bean crop continues to be harvested in most areas. Continue to scout late fields (more than 2 weeks from knifing) for rust, which was present in scattered fields in northeastern Colorado and southwestern Nebraska last week. The only fungicide that should be considered for susceptible fields with more than 2 weeks to knifing is Bravo. Light infection (fewer than 25 pustules per plant) should not affect yield or seed size if adequate moisture is present.

It is generally too late to continue to apply coppers or attempt any last minute rescue efforts on plants affected by bacterial diseases in most fields.

Continue to emphasize irrigation water management to extend intervals between irrigations to reduce excess surface moisture beneath the plant canopy, which favors white mold development on maturing pods.

Pay attention to harvest operations to maximize seed quality and consumer acceptability by reducing seed-coat checks and splits during combining and handling.

ONION Pests:

As of August 30, bacterial diseases still persist throughout the state and may carry over into harvest and storage. Fungicides like the EBDCs (Maneb, Mancozeb, Dithane, Penncozeb) tank mixed with copper based bactericides (Kocide, Champ, Nu Cop among others) continue to be effective when applied at full labeled rates with a non-ionic surfactant in sufficient gallonage. This tank mix will also help reduce other threats such as Botrytis Blast, Downy Mildew and Purple Blotch if present.

Continue to scout fields weekly for early or renewed signs of disease in the field or region. Maintain applications of protectant fungicides including the EBDCs, coppers, Bravo and Rovral in high gallonage plus adjuvant for good coverage on a 7 to 10 day interval. Rotate fungicide chemistry every other application when possible.

If Downy Mildew reappears in the region, continue to include EBDCs and/or Ridomil tank mixes in the spray program. However, recent high temperatures have reduced the threat of serious damage by Downy Mildew. The west slope is experiencing a moderate to severe outbreak of Downy Mildew, as well as some bacterial diseases with the moist weather that they have been experiencing recently.

Botrytis Blast may appear as tip death and spotting on foliage, in addition to Neck Rot, and both diseases can be managed with the EBDC and Rovral type of fungicides applied on a 7 – 10 day schedule. Include Rovral in the last 1 – 2 sprays to reduce carryover of Botrytis spores from the field through harvest into the curing & storage shed.

As we approach harvest, remember that air curing in the field and storage shed is VITAL to remove sources of moisture from the neck tissue and outer scales, thereby reducing the ability of bacterial and fungal pathogens to colonize and infect bulbs in the field and during storage. Do NOT apply heat (air temperatures greater than 85 F) to onions within the first 5 – 7 days of curing; high temperatures may actually promote more damage from bacteria responsible for Bacterial Soft Rot and fungi responsible for Black Mold.

POTATO Pests:

The Late Blight disease model has exceeded the threshold throughout Colorado, even assuming a late May emergence date with hours greater than 80 % relative humidity. The first report of Late Blight was confirmed August 5 in the San Luis Valley. There are still no confirmed reports of Late Blight in northeastern Colorado or the surrounding region.

Maintain protectant sprays (EBDCs, Bravo, Polyram, Quadris, etc.) on a 5 to 7 day interval for Early Blight. If Late Blight is detected in your region, incorporate newer chemistry such as Acrobat, Curzate and others.

The majority of fields has been or soon will be desiccated in northeastern Colorado. Remember to thoroughly destroy foliage and potential sources of inoculum which can threaten later maturing fields downwind. (Schwartz)

STRESS CAUSES FALL COLOR TO COME EARLY IN MANY PLACES

Curt Swift had an article in the newspaper and on their west slope list-serv recently that is very relevant to what I am seeing in many instances along the Front Range. It is worth passing on. (Brown)

Trees and shrubs already are dropping leaves in preparation for fall. Others are putting on their fall color. Both conditions are happening too soon, are an indication of stress and are occurring with trees planted last fall as well as older established trees. The dry winter, wet and cold spring and relatively hot, windy summer all contributed to this stress.

Roots of trees and shrubs are relatively shallow with 80 percent of the roots in the top foot of soil. This is true for huge old trees as well as younger trees. These roots extend from one side of the tree to the other for distances up to five times the height of the tree. A 50 foot cottonwood may have a root system with a spread of two hundred and fifty feet.

The water absorbing roots of these plants are near the ends of the root system often coming very close to the surface. In lawn areas it is not unusual to find many of the absorbing roots in the thatch layer. When the upper layers of the soil dries out these roots die. This happened this past winter except in areas which received supplemental water each month during the winter.

Root damaged trees and shrubs were greeted with a wet and cold soil this spring and were unable to replace winter-damaged roots. Root growth begins in the spring when soil temperatures are between 41 degrees and 47 degrees Fahrenheit (depending on the species of plant). Root growth also requires sufficient oxygen. The early spring rains, combined with the cold soil was improper for decent root growth. Some trees in the area took on a yellow to rusty color due to the lack of roots and inability of the remaining roots to absorb sufficient quantities of needed nutrients. Cold irrigation water compounded this problem, especially in those instances where the soil was not allowed to dry between irrigations.

Hot, windy weather followed the cold spring and placed additional stress on these woody plants by removing more water than the roots could replace. Now, toward the end of summer, trees and shrubs are beginning to shut down. They have used up much of their stored supply of water and need to drop leaves (and sometime branches) to reduce water loss in anticipation of winter.

Overwatering is a normal response of many gardeners who see their plants under stress. This, however, will further compound the problem by suffocating even more roots. Water deep and infrequently but do not keep the soil saturated. Be sure to give your trees and shrubs a thorough soaking in Mid October and be sure to water this winter.

The excessive loss of roses this spring and the problems we are currently having with our trees and shrubs are an excellent reason why we need to water in the winter. Trees currently showing stress will be even more stressed next year if more roots are allowed to die this winter. (Curt Swift, Tri-River Coop. Extn., Grand Junction)

AUGUST HARD COPY ISSUES DELAYED BECAUSE OF SERVICE SCREW-UP!

Those of you that receive the Pest Alert in hard copy are probably growling right now, if not you should be. Upon returning from my annual leave I noted that I did not have any Pest Alert hard copies in my mail box (even though I get mine on e-mail I always keep a file of the hard copies). About the same time the staff in charge of it told me that the company that prints and distributes it for us had computer problems and the last 4 copies were held up. I am very sorry that I did not catch this sooner. I am even more sorry that you are going to get the whole shooting match at one time. Much of the content is still appropriate but there were some very time sensitive notes as well. The only redeeming thing about this whole mess is that those of you who receive the Pest Alert via e-mail and were able to keep up. Let's hear it for e-mail---HOORAY!!

We will be evaluating the usefulness of Pest Alert this winter and examining the following options. 1-continuing as is with a fee and the option of hard copy or e-mail copy; 2-going only to e-mail

subscription with a fee; 3-on the web with no charge; OR 4-doing away with it all together. There is some discussion that with the proliferation of other newsletters, list-serves, fax letters and web sites that hard copy news letters like the Pest Alert are obsolete. I would like to hear from users over the next couple of months. Let me hear what you think either via e-mail, wbrown@lamar.colostate.edu or a written note to me at the address on the letter. NO PHONE CALLS PLEASE, I want it in writing. Thanks. (Brown)

USEFUL WEB SITES CONTINUED

Doug Jardine the IPM Coordinator and Cooperative Extension Plant Pathologist at Kansas State University is continuing to come up with his "Web Site of the Week" information. These are very good and I am passing on his most recent one on Pesticide Safety Programs

URL: http://www.epa.gov/pesticides/safety

The EPA has created a new web site to provide farm workers, certified applicators, and health care providers with information on the Agency's pesticide safety programs. This web site, which can be accessed in English and Spanish, provides specific information on applicator certification and training requirements and EPA's Worker Protection Standard, including pesticide safety training, notification of pesticide applications, use of personal protective equipment and emergency medical assistance. The site also provides information on the Pesticides and National Strategies for Health Care Providers, an EPA-led initiative aimed at helping health care providers become trained in diagnosing and preventing pesticide related illnesses. (Jardine)

FALL IS A GOOD TIME TO MANAGE NOXIOUS WEEDS

Noxious weeds, AKA invasive plants, are an insidious problem in Colorado and throughout western U.S. Noxious weeds displace native plants and disrupt evolved ecosystem processes. Infestations of noxious weeds in pastures, rangelands, and other natural areas readily disperse onto adjacent land causing further problems and eventually disperse into agronomic fields where they decrease crop quality and yield. Weeds will spread – that is their nature. Prevention is the most powerful form of weed management and the cheapest and easiest weed to manage is the one you do not have. One of the best ways to prevent weeds from spreading is to control existing infestations.

Fall is a good time to exert noxious weed control. Herbicides are the primary tool of choice in the fall. Biological control agents generally have finished preying on weeds by fall and most grazing livestock will not consume weeds this time of year. Mowing and hand pulling are most effective when practiced before weeds go to seed. Biennial weeds, such as musk thistle and diffuse knapweed, are in the rosette growth stage (except those setting seed) and can be readily controlled with herbicides. Perennial weeds, such as Canada thistle, Russian knapweed, and leafy spurge, also are very susceptible to fall-applied herbicides. The physiology of these latter weeds changes as the day length continues to shorten and temperatures decrease. It is not fully understood how these changes increase their susceptibility to herbicides applied in fall, but land managers can seize the opportunity and take advantage of our empirical knowledge base.

Late fall also is the best time to seed competitive perennial grasses that will help to reclaim infested areas. Often times noxious weed infestations form monocultures, or nearly so, and if weed populations are depleted by some control method, a disturbed area will be left behind. Weeds readily invade disturbed areas and the best way to combat this weedy attribute is seed the area with desirable plants. A dormant seeding done in late October or early November will allow desirable seeds to imbibe soil moisture and be ready to emerge early the following spring to establish and compete with recovering weeds.

The growing season is not finished, so make your fall noxious weed management plans and take advantage of their susceptibility to control methods this time of year. For more information, contact George Beck (970-491-7568) (Beck).

POLICY PAPER ON ROLE OF USE-RELATED INFORMATION PUBLISHED

On July 14, 1999, EPA published a Federal Register notice announcing the availability of a draft document for public comment- The Role of Use-Related Information in Pesticide Risk Assessment and Risk Management. This paper is being released for a 60-day public comment period, as part of a process developed in conjunction with the Tolerance Reassessment Advisory Committee (TRAC) to ensure that EPA s policies related to implementing the Food Quality Protection Act (FQPA) are transparent and open to public participation. The paper announced in this notice summarizes the types of use-related information used by EPA in risk assessment and risk management, where the data come from, and how the Agency employs these data.
The Federal Register notice includes questions on which EPA is particularly seeking comment. The paper is available through the OPP Docket and on the Internet at:
www.epa.gov/pesticides/trac/science/.

Comments can be submitted in person, by mail, or electronically as described in the Federal Register notices. The Federal Register notice is available electronically at www.epa.gov/fedrgstr. (McDonald)

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@ceres.agsci.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.
Extension Plant Pathologist