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Pest Alert

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JULY 12 VEGNET REPORT

During the last week, temperatures averaged in the mid 80s at most sites in the region. During the last week, rainfall was less than 0.10 inches on the average in most of Colorado and Nebraska. A few sites received more than 0.25 inches of rain last week; including the west slope sites. The upcoming week is forecasted at above average moisture and average temperature at most sites for this time of the year.

Crops should be scouted at least once a week for early evidence of pests. Check with your local consultants and other experts on crop status and the initiation of disease protection strategies when either disease is confirmed in the region and/or a disease threat does exist.

DRY BEAN Pests:

As of July 12, the dry bean crop continues with early to mid flowering phases in the region and there are no reports of rust problems. Some fields continue to recover from storm damage from hail, wind, and wind-blown soil; and many are beginning to show moderate to severe outbreaks of bacterial brown spot. Maintain the copper bactericide program on a 7 – 10 day schedule throughout the late vegetative to early pod set phases, especially for light red kidney and yellow beans. Ground-rig applications are preferable until row closure; then rely upon aerial sprays (4 – 5 gal of water/A) or chemigation (less than ¼ in of water/A) until the risk of infection is low due to absence of disease and/or persistent hot, dry conditions.

A survey throughout eastern and southern Colorado in mid June, found ample evidence of volunteer beans in old bean ground planted to wheat or corn, but no evidence of overwintered rust infection. The lack of rust on volunteers may be attributed to a number of factors including low disease pressure in 1998 at harvest, and increasing acreage planted to rust-resistant varieties of pintos. However, these volunteer plants may have contributed to bacterial pathogen survival and early-season spread into the 1999 crop, especially during stormy weather.

On ground with a history of white mold planted to susceptible, vine-type pintos or great northerns, consider application of a white mold fungicide (Topsin, Benomyl) at 100% to full bloom to protect blossoms from becoming colonized by the fungus and initiating white mold infection after row closure. After row closure, emphasize irrigation water management to reduce excess surface moisture beneath the plant canopy.

ONION Pests:

As of July 12, most transplanted fields continue to approach maturity and harvest. Bacterial diseases like Soft Rot persist in the Front Range area, and Xanthomonas Leaf Blight is showing up in the Arkansas Valley. Once confirmed, fungicides like the EBDCs (Maneb, Mancozeb, Dithane, Penncozeb) tank mixed with copper based bactericides (Kocide, Champ, Nu Cop among others) have been extremely effective, especially when a non-ionic surfactant is added in sufficient gallonage.

The disease model (PRI = 300, RH = > 95%) suggests that Purple Blotch may occur in some regions in transplanted fields, and now possibly in some seeded fields as well. Last week there was a report of some suspicious lesions, which were not confirmed in the laboratory. Continue to scout fields at least once, and preferably twice, a week for early signs of disease in the field or region. Consider application 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.

POTATO Pests:

The early blight and late blight disease models have exceeded the threshold for many sites in northeastern Colorado, assuming a May 1 up to May 21 emergence date with hours greater than 80 % relative humidity. Crop development has responded in recent weeks to favorable growing temperatures so plant canopies could favor fungal pathogen survival and disease development if the pathogen is present in the field.

Maintain protectant sprays on a 5 to 7 day interval for early blight. There are no reports of late blight in Colorado or neighboring states, but an aggressive early blight fungicide program has been shown to be beneficial against early season infection by late blight as well.

Scouts have brought in numerous samples with suspicious symptoms, but to date none of the tissue has yielded any pathogen of concern. Apparently we are seeing the background effects of various abiotic problems such as scald, heat stress, Rhizoctonia, etc. Continue to scout fields twice weekly (Schwartz).

MORE HOT WEATHER, STRESS AND TURF DISEASES

With continued hot weather we will have continued stress, subsequently resulting in more turf disease development. The 4th of July is usually a good marker for dollar spot to become prevalent.

Refer to the Curt Swift's S.A. 2.933, **Dollar Spot Disease of Turfgrass**.

We (Laura Pottorff in Jeffco) have seen some dollar spot but not as much as we would anticipate. Possibly with the Helminthosporium leaf spot/melting out, Ascochyta leaf blight and heat damage so wide spread dollar spot is not so distinct. Now dollar spot should come on like gang busters, especially if the present high temperatures continue.

Necrotic Ring Spot (NRS) symptoms will also become more apparent. Rubigan, Banner and/or Heritage along with aeration and other management practices can give control when applied in spring and/or fall, but will not help much if applied during the mid-summer heat.

Although we continue to emphasize stress management and cultural practices as the basic approaches to turf disease control there are times when fungicides will be needed. This is especially true with chronic dollar spot areas. Benomyl, DuPont 1991, is not available for turf anymore. Rubigan, Banner and some thiophanate containing products will do a good job on dollar spot. NOTE that Heritage is not effective against dollar spot and in some instances has been reported to make it worse. Before using any fungicide make sure that you have an accurate diagnosis and read the fungicide label very carefully. (Brown)

CORN UPDATE

So far we are not seeing any diseases developing in corn. Early there were some problems associated with cool and wet soil, but current high temperatures have really brought the crop out of that situation. We are keeping our eyes open for high plains disease and stalk rots, but so far nothing.

Gray leaf spot that caused so much of a problem farther east of us was reported around Burlington and Lamar a couple of years ago, but does not seem to become established. Gray leaf spot, caused by the fungus Cercospora zeae-maydis develops in warm-to-hot humid areas. It is wide spread in the world and in recent years has occurred in increasing frequency in U.S. corn. The leaf spots on corn leaves begin as pale brown or gray to tan, long rectangular spots generally restricted by the veins. These spots may merge (coalesce) and eventually kill the leaves. Spots are first noticed on the lower leaves.

Gray leaf spot is most associated with reduced tillage fields and along with the use of resistant varieties, management can be accomplished by tillage and rotation. While our dry weather would normally limit the development of gray leaf spot, corn on corn growing in reduced tillage situation could cause the disease to develop if humidity became higher.

The fungus is moving farther west each year and field personnel and growers should note any unusual rectangular-like leaf spots when scouting their fields. If such leaf spots are observed collect and send samples into us as fast as possible. (Brown)

SKOGLUND LEAVES TO JOIN BUSCH AG RESEARCH

Dr. Linnea Skoglund will be leaving Colorado State University to take over the plant pathology responsibilities with Busch Ag at the Fort Collins research facility. She will be in charge of the plant pathology program.

Linnea ran the CSU diagnostic clinic, our turf pathology program and covered a lot of plant pathology needs for us over the last 5 years. We will miss the ability and thoroughness that she brought to the program. While we are losing a valued staff member we are gaining a talented barley research cooperator at Busch.

Good luck Linnea and many thanks for all that you did for us!

Barbara Ambruzs will be taking over the plant clinic responsibilities for the rest of the season. Barbara can be contacted at (970) 491-6950. Barbara worked with Joe Hill and Howard Schwartz on her masters program at CSU in potato pathology. She has worked with us in the clinic in the past on the Dutch Elm Diseases diagnosis, Karnal bunt and general programs. She has a very strong interest in traditional mycology as well as grounding in molecular work. We are looking forward to working with her and expect an outstanding season. (Brown)

REGIONAL WEATHER SUMMARY & FORECAST

	Last Week	(7/05 – 7/11/99)	**This Week's**	**NWS Forecast**
	Moisture (inches)	*High Temp (F)*	*Moisture*	*Temperature*
COLORADO				
Ault	0.04	85.1	Above Average	Average
Avondale	0.09	87.6	Above Average	Average
Burlington	0	83.7	Above Average	Average
Center	0.01	79.6	AboveAverage	Average
Delta	0.34	91.5	Average	Average
Dove Creek	0.42	85.2	Average	Average
Fort Morgan	0.06	86.6	Above Average	Average
Grand Junction	0.29	92.8	Average	Average
Kersey	0	86.4	Above Average	Average
Peckham	0.01	84.9	Above Average	Average
Rocky Ford	0.13	89.2	Above Average	Average
Sterling	0.03	85.0	Above Average	Average
Wray	0	82.5	Above Average	Average
Yuma	0.06	84.2	Above Average	Average
NEBRASKA				
Alliance	0	84.0	Above Average	Average
Champion	0	84.0	Above Average	Average
Scottsbluff	0	86.0	Above Average	Average
WYOMING				
Torrington	0	86.0	Above Average	Average
KANSAS				
Garden City	0.23	87.0	Above Average	Average
Tribune	0.07	87.0	Above Average	Average

ASSUMPTION:average moisture = 0.25 inch & average daily high temperature = 86 F/week
[Based on data from the National Weather Service + Data Transmission Network, COAGMET + Colorado Climate Center of Colorado State University – Fort Collins, and the High Plains Climate Center of the University of Nebraska – Lincoln. Conditions may vary with your own situation, for more detailed information consult the following Web Sites:
Colorado data at http://ccc.atmos.colostate.edu/ and Nebraska data at http:/hpccsun.unl.edu]

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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