



Pest Alert

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EARLY FALL COLORATION ON MANY ORNAMENTAL TREES
TREE WORKSHOP COMING TO CARBONDALE
NOTE FROM THE DENVER POST (BYLINE FROM THE WA POST) - SEPT. 22, 1999
SUMMARY OF BEAN DISEASE IPM STRATEGIES
SUMMARY OF ONION DISEASE IPM STRATEGIES
SUMMARY OF POTATO DISEASE IPM STRATEGIES
NEMATODE SHORT COURSE FOR CONSULTANTS, JANUARY 3—11, 2000
SNOW MOLD SEASON IS HERE
HOME LAWN SNOW MOLD PREVENTATIVE FUNGICIDE TREATMENTS ARE NOT
RECOMMENDED IN COLORADO EXCEPT IN VERY SPECIAL SITUATIONS
WHEAT UPDATE

EARLY FALL COLORATION ON MANY ORNAMENTAL TREES

There were quite a few early fall/stress symptoms on local shade trees (my silver maple for instance!). Such trees generally are the result of stress accumulated weather dryness and the fluctuating moisture this past spring and summer. These symptoms indicate the trees are stressed and should be treated carefully going into and during the winter. Fall/winter/spring soil water availability should be checked and water applied if needed.

There are many honey locusts also showing this early fall coloration. Frequently such trees have collar rot. With the wet conditions we have had, water around the base of the tree through the spring, summer, and into the fall can induce this disease. This disease can be fatal to a tree if more than 50% of the stem is girdled, there is a need to prevent the problem by keeping soil around the trees dry or removing it and replacing it with gravel or mulch. For more information see Bill Jacobi's Service In Action Sheet 2.939. (Brown)

TREE WORKSHOP COMING TO CARBONDALE

Speaking of trees, an excellent workshop on tree use and care is scheduled for October in Carbondale. Curt Swift from Grand Junction Cooperative Extension sent us this announcement.

"Growing trees in growing communities"
Thursday October 21 and Friday October 22
Carbondale Town Hall, Carbondale, Colorado

Colorado State University, U.S. Department of Agriculture and Colorado counties cooperating.
Cooperative Extension programs are available to all without discrimination.

The theme of this year's Community Forestry Conference is ***Growing Trees in Growing Communities***. Colorado is experiencing unprecedented growth and development in almost every county. Small towns, which describes every community on the Western Slope, are desperately trying to preserve the qualities of community as well as the natural beauty surrounding them which has attracted so many newcomers to their doorsteps.

This workshop will address planning concepts, technical issues and overall strategies for dealing with growth and development. Tree Board members, city employees, tree care professionals and anyone interested in growing healthy trees should attend. Our common concerns are the preservation of small town character, conservation of water resources and the practical means to create a vibrant and balanced urban forest.

In addition to featured speakers, we would like to invite other Tree Boards to share their ideas, projects or dilemmas in the Shared Experiences time slot at 5 p.m. Thursday. Presentations should be no more than ten minutes and should include slides if possible. There will also be tables where you can set up displays or show examples of your materials.

To register or if you would like to present or have table space made available to you contact Brenda Alagna at (970) 963-1307.

Conference attendees may qualify for Certified Arborist continuing education credits.

Workshop Schedule

Thursday, October 21

- 12:00 Check-in and Registration
- 1:00 Welcome
- 1:15 Town Meets Country -
Steve Ellsperman,
City of Aspen Natural Resource Manager
How might the urban ecosystem complement the surrounding natural environment? Native species: what works and where to get it. How can we encourage birds and support wildlife corridors across the urban or suburban fabric?
- 2:15 Planning, Spacing and Clustering Trees - Julia Marshall, Landscape Architect
Different approaches to design. Placing trees for different effect.
- 3:00 Break
- 3:15 Tree Inventories and GIS Mapping - Vince Urbina, Forester, Colorado State Forest Service
The importance of these tools in both planning and maintenance of the urban forest.
- 4:00 Pruning Large Trees - Tom Ziola, Consulting Arborist, City of Grand Junction
Creating realistic specification and improving the bidding process of small communities. How to get competitive bids in a tight or weak market.
- 5:00 Shared Experience - Representatives from different Tree Boards
Representatives of Delta, Cedaridge and Carbondale will talk about how they have dealt with different aspects of growth in their towns. The discussion is open to other Tree Boards. Every-one is encouraged to stick around to share ideas before dinner.
- 7:00 Dinner at the Carbondale Community School, 1506 Satank Road
- 7:30 Keynote Speaker - Cindy Zimar of the National Tree Trust

Friday, October 22

- 7:30 Sign-in, coffee and donuts
- 8:00 Water-wise Landscaping with Trees, Shrubs and Vines; Learning from Nature - Jim Knopf, Landscape Architect and Author

Selecting and grouping plants of similar water needs relative to common turf types.

Landscaping inspired by our natural landscapes can cut costs, save water and maintain the character of the land that attracted us here in the first place.

9:00 Trees and Construction - Curtis Swift, Horticulturist, CSU Cooperative Extension, Grand Junction

What does a tree need from the soil to grow and thrive. How do traditional construction activities impact trees and how can alternative construction techniques avoid tree damage.

10:00 Break

10:15 Insects, Pests and Disease - Dave Leatherman, Entomologist, Colorado State Forest Service
Identifying new and old Western Colorado tree pests. Now that I know the pest, what do I do? Steps any city can take to avoid epidemic pest problems.

11:15 Injecting Mycorrhizae into Urban Soils - Dave Heinz, Senior Arborist, Mountain High Tree Service, Denver

Some say it's a necessary growth requirement and others say it's a waste of money. If we want to get trees established quickly in newly developed areas, should we be using it?

12:15 Wrap-up, Vince Urbina, Colorado State Forest Service

(Curt Swift, Tri-River Cooperative Extension, Grand Junction, (970) 244-1834)

NOTE FROM THE DENVER POST (BYLINE FROM THE WA POST) - SEPT. 22, 1999.

FUNGI SURPRISINGLY POWERFUL

Many plant diseases are caused by fungi, which penetrate the plant's tough outer skin, or cuticle, to feed on the soft and nutritious pulp within. Some of these fungi gain access by secreting cuticle-dissolving enzymes, but others use brute force to punch their way in.

Now scientists have measured that battering force directly and have found it to be surprisingly large for a supposedly immobile life form. A team of physicists and biologists in Germany used a sensitive force-sensing instrument to measure the power with which fungal cells of the species *Colletotrichum graminicola* can push against a thin aluminum film.

In nature, the fungal cells (which cause a disease of corn) adhere tightly to plant leaves, then fill with water taken up from dew-drops. As they expand over the course of two hours or so, they press with increasing force against the leaf, ultimately bursting through the cuticle.

The researchers found that the cells can build up astonishing internal pressures of more than 5 megapascals, or about 30 times that found in car tires. That translates into a force of about 17 micronewtons, more than enough to crush the cuticle's cellular architecture.

The work could speed development of crop-protecting fungicides that block the pressure building mechanism, the researchers reported in the Sept. 17 edition of the magazine *Science*. (Schwartz)

SUMMARY OF BEAN DISEASE IPM STRATEGIES:

1. Rotate out of dry beans for at least 2 years.
2. Eliminate bean debris and sources of volunteer beans during the fall of 1999 and spring of 2000.
3. Plant high quality, certified, treated seed of disease resistant varieties, if available and suitable for your market needs.
4. Follow recommended production practices to avoid stress from extremes of moisture, temperature, and soil compaction.
5. Manage water and fertilizer inputs to provide adequate, but not excess components for the crop need to avoid excess canopy development.

6. Carefully scout fields to detect foliar infection as early as possible, get confirmation of disease diagnosis from appropriate experts.
7. Monitor reports on weather patterns, disease forecasts, and confirmed sightings in your region via the CSU VegNet.
8. When infection is confirmed in or near your field, implement a timely program of fungicides and bactericides with protectant and systemic modes of action. Rotate appropriate fungicide chemistry, apply labeled rates, and stay within recommended spray intervals.
9. Adjust combine at harvest to maximize seed quality, and reduce loss of seed that can germinate next spring to produce volunteer plants.
10. Thoroughly incorporate each season's crop debris + pathogens to reduce carryover and potential disease pressure the following season. Rely upon cultivation and herbicide in next year's rotation crop to reduce volunteer bean emergence and possible infection by pathogens that can then be spread to next year's host crop.

SUMMARY OF ONION DISEASE IPM STRATEGIES:

1. Rotate out of onions for at least 2 years.
2. Eliminate onion debris, culls and sources of volunteer onions during the fall of 1999 and spring of 2000.
3. Plant high quality, certified, treated seed, and clean transplants of disease resistant varieties, if available and suitable for your market needs.
4. Follow recommended production practices to avoid stress from extremes of moisture, temperature, and soil compaction.
5. Manage water and fertilizer inputs to provide adequate, but not excess components for the crop need to avoid excess canopy development.
6. Carefully scout fields to detect foliar infection as early as possible, get confirmation of disease diagnosis from appropriate experts.
7. Monitor reports on weather patterns, disease forecasts, and confirmed sightings in your region via the CSU VegNet.
8. When infection is confirmed in or near your field, implement a timely program of fungicides and bactericides with protectant and systemic modes of action. Rotate appropriate fungicide chemistry, apply labeled rates, and stay within recommended spray intervals.
9. Complete drying of tops and necks prior to harvest is essential for good bulb curing and to reduce or eliminate spore spread from infected foliage to bulbs. Monitor storage facilities for evidence of hot or wet spots, and rely upon air movement to dry bulbs and reduce decay of onions that are known to be infected by pathogens.
10. Thoroughly incorporate each season's crop debris + pathogens to reduce carryover and potential disease pressure the following season. Rely upon cultivation and herbicide in next year's rotation crop to reduce volunteer onion emergence and possible infection by pathogens which can then be spread to next year's host crop.

SUMMARY OF POTATO DISEASE IPM STRATEGIES:

1. Rotate out of potatoes for at least 2 years.
2. Eliminate potato debris, culls and sources of volunteer potatoes during the fall of 1999 and spring of 2000.
3. Plant high quality, certified, treated seed of disease resistant varieties, if available and suitable for your market needs.
4. Follow recommended production practices to avoid stress from extremes of moisture, temperature, and soil compaction.
5. Manage water and fertilizer inputs to provide adequate, but not excess components for the crop need to avoid excess canopy development.

6. Carefully scout fields to detect foliar infection as early as possible, get confirmation of disease diagnosis from appropriate experts.
7. Monitor reports on weather patterns, disease forecasts, and confirmed sightings in your region via the CSU VegNet.
8. When infection is confirmed in or near your field, implement a timely program of fungicides and bactericides with protectant and systemic modes of action. Rotate appropriate fungicide chemistry, apply labeled rates, and stay within recommended spray intervals.
9. Complete vine kill 3 weeks prior to harvest is essential for good skin set and to reduce or eliminate spore spread from infected foliage to tubers. Monitor storage facilities for evidence of hot or wet spots, and rely upon air movement to dry tubers and reduce decay of potatoes that are known to be infected by pathogens.
10. Thoroughly incorporate each season's crop debris + pathogens to reduce carryover and potential disease pressure the following season. Rely upon cultivation and herbicide in next year's rotation crop to reduce volunteer potato emergence and possible infection by pathogens that can then be spread to next year's host crop.

NEMATODE SHORT COURSE FOR CONSULTANTS, JANUARY 3—11, 2000

Clemson University and the Department of Plant Pathology and Physiology will again sponsor the nematode Identification Course for Professional Consultants. The course provides training in separation of nematodes from soil and plant material and identification of nematodes to genus.

Pre-registration is required. Early registration is recommended because enrollment is limited to 18 participants. The registration fee is \$650, which includes instruction, use of laboratory equipment, workbook, and *Plant-Parasitic Nematodes – A Pictorial Key to Genera*. The course description and further information can be found at <http://pppweb.clemson.edu/nematode.htm> on the World Wide Web or by contacting Dr. Stephen A. Lewis, Chair, Department of Plant Pathology & Physiology, Clemson University, Clemson, South Carolina 29634-0377. Phone (864) 656-5741, Fax (864) 656-0274 or e-mail slewis@clemson.edu. (Brown)

SNOW MOLD SEASON IS HERE

Even though it is sunny out there and golfers are still swinging, volley ball players still "volleying", and sun shine freaks still "freaking", snow mold season is here. On the golf courses many managers are putting down their first applications of snow mold fungicides. Others are still thinking about it and we are for another year of fungicide trials in the mountains.

It is especially important for those golf courses where pink snow mold (*Microdochium nivale* syn. *Fusarium nivale*) is a problem to get their material down early. We had a lot of calls on this problem last spring, so there should be ample fungus inoculum present. On these courses the preferred fungicides are the systemic fungicides such as triadimefon, propiconazole and the thiophanates. Systemic fungicides must go on while turf is still active. In some of the high mountain courses, managers will put down a low rate now and then go back in two to three weeks with the high rate.

In our trials over the last few years at Vail, propiconazole (Banner), triadimefon (Bayleton) and some experimental materials were good for pink snow mold. These systemic fungicides will not control gray snow mold.

While the standard material over the years for gray snow mold (caused by *Typhula* spp.) was mercury containing fungicides, these were discontinued and are no longer available or legal. Over the 18 years of plot work at Vail, the best gray snow mold control (after or equal to mercury) has been with chloroneb (Teremec SP) and PCNB (Terrachlor) fungicides. Others frequently do just as well but

these are still the most widely used and still look very good to us alone or in combinations. It is critical to apply these fungicides as near to permanent snow cover as possible. They are contact fungicides and provide a protective coating but do not act systemically. With both diseases, a mid winter thaw requires reapplication.

HOME LAWN SNOW MOLD PREVENTATIVE FUNGICIDE TREATMENTS ARE NOT RECOMMENDED IN COLORADO EXCEPT IN VERY SPECIAL SITUATIONS.

Home lawns, parks and other general use areas generally do not need snow mold fungicides applied. In most instances the amount of snow mold that may develop is low and an early spring, vigorous raking followed by a half rate of nitrogen and irrigation will usually bring your blue grass area back quickly. (Brown)

WHEAT UPDATE

Viruses-

Delayed planting and volunteer management is essential if virus diseases are to be kept at a minimum. With the good weather we are having a lot of planting has happened and the wheat is up in many places. But there is still corn in the fields. This may be especially a problem where there is dryland corn. There is a risk of wheat streak mosaic virus and/or High Plains virus infection from the wheat curl mite as it moves from the corn to green wheat seedlings as they emerge. This is a tough one to manage, and only delayed planting will help. In areas where volunteers are abundant, elimination of those will also help a lot.

Seedling diseases-

There is always a risk of seedling diseases if unfavorable environmental conditions exist and seed has not been treated. About the only seed treatment used in Colorado are for loose smut, Vitavax or Vitavax combinations. At the present time conditions for wheat emergence and growth are very good. But some problems can develop.

A key to diagnosis of seedling diseases was prepared by Bill Willis (Kansas State University-retired) many years ago. Each year I pull it out and adjust it to reflect our conditions. I am enclosing that for your use. It is very helpful and in most instances will lead you to the correct diagnosis, or at least get you in the ball park! (Brown)

Diagnostic Symptoms on Wheat Seedlings
(Prejointed Stages)

A.	Seedlings do not emerge (see B) B. Seed not germinated	Drought Chemical injury Black point Storage molds Storage conditions Insects Birds Rodents
	B. Seed or germlings chewed, damaged, hypocotyl missing	Chemical injury Seedling blights Root/foot rot Nematodes
	B. Germlings distorted, deformed B. Germlings rotted or with lesions	Winter injury Snow molds Desiccation Water Downy mildew* Root/foot rot Soil-borne mosaic Chemical injury Nematodes
A.	Seedlings emerge with symptoms on root or leaves (see C) C. Diseased plants in definite patches or areas (see D) D. Damaged areas related to snow cover D. Damaged areas in wet soil (i.e., low spots) D. Roots with swellings, deformed	Seed gall nema* Flag smut* Wheat curl mite Chemical injury Russian wheat aphid Insects Mammals Hail Wind Low temperature color banding Root/foot rot Nutrient deficiency Chemical injury Water logging Nematodes* Barley yellow dwarf Wire worms Viruses Cephalosporium stripe Bacterial mosaic* Rusts Powdery mildew
	C. Diseased plants scattered or uniform through fields (see E) E. Symptoms on leaves (see F) F. Leaves twisted, rolled, deformed or thickened	
	F. Leaves or crowns chewed or tattered	
	F. First seedling leaf with distinct horizontal band F. Leaves chlorotic, plants stunted or wilted	
	F. Leaves with mosaics, dashes or streaks	
	F. Leaves with flecks, superficial mycelium, or erumpent pustules	
	E. Symptoms on roots and/or crowns (see G) G. Roots or crown with darkened rots, lesions G. Roots deformed, knotted,,stubby	Common root rot Foot rots Cereal cyst nematode* Root gall nematode* Root knot nematode* Stubby root nematode* Chemical injury Cereal cyst nematode*
	G. Roots with loosely attached white or brown cysts	

* Not reported in Colorado

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;

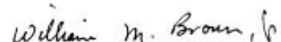
hfspp@lamar.colostate.edu

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