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RUSSIAN KNAPWEED MANAGEMENT ON RANGELAND AND NON-CROP AREAS

Russian knapweed is a noxious, perennial weed and a planned, integrated management approach will achieve the best control. Management systems must rely on chemical or mechanical methods coupled with competition from desirable plants. Biocontrol of Russian knapweed is not available currently. Russian knapweed is allelopathic and may decrease or eliminate desirable plants in weed infestations. It is important that infested areas be seeded to perennial grasses after the weed is adequately controlled. Tordon at 1 qt/A, Tordon plus 2,4-D at 1-1.5 pt + 1 qt/A, Curtail at 3 qt/A, or Escort at 1 oz/A can be used in pastures, rangeland, or non-crop areas. Telar at 1 oz/A can be used in non-crop areas only. Apply Tordon or Tordon plus 2,4-D anytime Russian knapweed is growing or apply Curtail in spring when the weed is in the bud to bloom growth stage. Apply Escort or Telar when Russian knapweed is in the bloom to post-bloom growth stage, although fall applications of Telar have been very successful. Escort or Curtail may be applied in spring before perennial grasses are sown in fall, but Tordon may be applied only on established grasses. Recent CSU research showed that two mowings (June and August) followed by fall sown grasses was less successful than Curtail or Escort applied in spring followed by fall-sown grasses. The

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



best treatment combination in this research was Curtail applied at 3 qt/A when Russian knapweed was in the bud to bloom growth stage followed by seeding streambank wheatgrass. Over 93% of Russian knapweed still was controlled 2 years after the treatment combination was done and there was 27 times more streambank wheatgrass harvested from plots treated with Curtail than from those where mowing was used as a suppression treatment or where no suppression was done. For additional information, call George Beck at (970) 491-7568 or refer to CSU SIA 3.111.

PERENNIAL PEPPERWEED & WHITETOP MANAGEMENT

Perennial pepperweed (tall whitetop) and whitetop (hoary cress) are creeping perennial mustards that infest pastures, rangeland, and non-crop areas in Colorado. Perennial pepperweed is a significant problem in and around riparian areas; the plant may be allelopathic and often forms monocultures. Whitetop tends to invade ground where the plant community is degraded. Because of this, ground infested with either weed should be seeded with perennial grasses after weeds are controlled. Neither weed is readily grazed by livestock and like many mustards, may be poisonous to livestock. No biocontrol is available for perennial pepperweed or whitetop and the prospects for classical biocontrol development (search for predators in the weed's origin) are not promising because some scientists believe both perennial mustards are too closely related to valuable crops.

Telar and Escort at 1 oz/A will control either weed. Telar at 1 oz or Escort at 0.75 oz will control perennial pepperweed. Use a surfactant at 0.25% v/v with Telar or Escort. CSU research showed that Campaign (formulated product of glyphosate plus 2,4-D) at 40 to 54 fl oz/A controlled perennial pepperweed for at least one season. Flooding destroyed the experiment and long term control could not be determined. Herbicides should be applied in spring at flowering for 2 consecutive years, then seed perennial grasses in the fall of the second year. Amber also is a sulfonylurea herbicide and should control perennial pepperweed or whitetop but data are not available to define activity on the weeds or rates. For more information, contact George Beck (970) 491-7568. (Beck)

EPA SEEKS PUBLIC COMMENT ON PRELIMINARY RISK ASSESSMENT FOR MALATHION

EPA published for public comment a preliminary risk assessment for the organophosphate pesticide malathion on May 11. EPA's preliminary risk assessment indicates that risks from exposure to malathion used in mosquito control or on crops are within acceptable limits. When malathion is used according to label directions, analyses show very low potential for human exposure and therefore cancer risk from malathion is not of concern. Malathion is used on a variety of crops, home gardens, golf courses, mosquito control, and others. The preliminary risk assessment outlines EPA's initial evaluation of malathion, and is subject to change following additional information and further scientific refinement. The public will have 60 days to comment on the preliminary risk assessment for malathion. EPA will review all comments received and then publish a revised risk assessment this fall. The revised risk assessment will also be made available for public comment. At the same time, EPA will open a 60-day public comment period to invite possible risk mitigation ideas and proposals. Copies of the preliminary risk assessment will be available on EPA's web site at www.epa.gov/pesticides/op/malathion.html or by calling the Pesticide Docket at 703-305-5805. (McDonald)

EPA ANNOUNCES PUBLIC MEETING FOR THE ORGANOPHOSPHATE PESTICIDE CHLORPYRIFOS

As part of EPA's commitment to be open and transparent in implementing the Food Quality Protection Act, on June 8, a technical briefing on the revised risk assessment for the organophosphate pesticide chlorpyrifos will be held. The chlorpyrifos technical briefing will provide an opportunity for the public to learn about the data, information and methods that EPA used in revising the risk assessment for this pesticide. In the United States, chlorpyrifos is one of the most widely used pesticides in agriculture and in home lawns and gardens. Chlorpyrifos is also known by various product names such as Dursban, Lorsban, Equity, and Empire 20. Further information can be obtained in the May 10 Federal Register available at www.epa.gov/fedrgstr/. (McDonald)

EPA PROPOSES DRAFT GUIDANCE ON VOLUNTARY RESISTANCE MANAGEMENT LABELING FOR AGRICULTURAL PESTICIDES

On May 10, 2000, EPA proposed guidance on the voluntary inclusion of resistance management information on the labels of agricultural pesticide products. This guidance was developed through a joint effort of Canada, Mexico, and the United States under the North American Free Trade Agreement (NAFTA) to ensure that the labeling of pesticide products for resistance management strategies is consistent in all three countries. If growers do not take proper precautions, pests can develop resistance to pesticides, reducing their effectiveness. An important strategy in resistance management is to avoid repeating the use of a particular pesticide or pesticides with a similar "mode/target site of action" (biochemical mechanism by which the pesticide acts on the pest) in the same field. Instead, resistance can be delayed by rotating pesticides with a different mode/target site of action, without resorting to increases in application rates and frequency.

Under the proposed policy, the pesticide industry is encouraged to add information on resistance management to both new and existing product labels by January 1, 2004. The draft PR Notice recommends that information on resistance management have standard formats, presentation, and statements on product labels. For example, resistance management statements are to appear in the "General" section of "Use Directions," preferably in a box. The draft PR Notice recommends standard resistance management labeling statements specific to herbicides, fungicides and bactericides, and insecticides and acaricides. The pesticide classification lists will be updated on a regular basis, perhaps annually, to include new information on products and mode/target site of action.

EPA is accepting public comments on the draft PR Notice for 60-days after publication, and a final PR Notice is expected by the end of 2000. For information on this draft PR Notice, please contact Sharlene Matten in the Biopesticides and Pollution Prevention Division at (703) 605-0514; matten.sharlene@epa.gov. The draft PR Notice and A Federal Register Notice announcing the availability of the PR Notice will be available on EPA's web site at www.epa.gov/pesticides. (McDonald)

EPA PROPOSES NEW LABELING RESTRICTIONS FOR INSECT REPELLENTS USED ON INFANTS AND CHILDREN

On May 10, 2000, EPA proposed restrictions on the labeling of insect repellents marketed for use on infants and children. The proposed changes are part of a draft Pesticide Registration (PR) Notice, which will be available on EPA's web site at

www.epa.gov/pesticides/biopesticides. The Agency is concerned that packaging and labeling specifically targeted to children (e.g., "for children" or "for kids") may encourage inappropriate handling and use of these products by children. In many cases, such labeling contradicts directions or precautions on the same product labels (usually in much smaller print) that prohibit such handling and use by children. Furthermore, EPA believes that labeling targeted for infants and children may be misleading to parents because these products are not formulated differently for children than they are for adults. In addition, EPA is proposing restrictions on the use of food fragrances and colors in insect repellents. The Agency is concerned that insect repellents made with food fragrances and colors (e.g., grape, watermelon, orange) and packaged with graphics of the same food may encourage children to eat the product.

This draft PR Notice outlines the proposed procedure and time frame for registrants to make changes to the labels of currently registered insect repellents with claims targeting use on infants and children, and to reformulate products that contain food colors or fragrances. Under this policy, EPA would not allow registrants to sell or distribute products that do not follow these restrictions as of March 1, 2001, and existing stocks may be sold or distributed by others until March 1, 2003.

A Federal Register Notice announcing the availability of the PR Notice is also available on EPA's web site at the above address. EPA is accepting public comments on this draft PR Notice for 60-days after publication, and the final PR Notice is expected by the end of 2000. For additional information on this draft PR Notice, please contact Robyn Rose in the Biopesticides and Pollution Prevention Division at (703) 308-9581; rose.robyn@epa.gov. (McDonald)

WORKER PROTECTION STANDARD (WPS) COMPLIANCE

EPA has targeted Worker Protection Standard (WPS) compliance for inspection this summer. The inspectors will ask for and want to see complete and up-to-date WPS reports and appropriate posting of required information. All uses of pesticide products falling under WPS need to be in compliance. Not sure? READ THE LABEL. That's your key to compliance. All WPS labels include agricultural use requirements, personal protection equipment, reentry posting and directions for handlers and workers.

Check immediately to see that the WPS training cards on all employees who work with pesticides are current. Employees are required to have WPS training every five years. (McDonald)

LEAF COMPOST SUPPRESSES ONION DISEASE

The May 2000 issue of BioCycle reviews a study at the Connecticut Agricultural Experiment Station at New Haven on the impact of repeated applications of leaf compost on onions over a 3-year period. Authors A. A. Maynard and D. E. Hill (Dept. of Soil & Water, Forestry and Horticulture) report that a one-inch layer (60 tons/acre) of leaf compost (yard trimmings) was applied to a sandy soil plot and fertilized with 1300 lbs of 10-10-10 NPK/Acre. The unscreened compost was produced in a passive pile turned 2 or 3 times annually for two years. Four onion cultivars (Daytona, Ole, X-201, Corona) were evaluated for yield and diseases in composted and control plots annually during 1994 - 1996. The complete research paper is available in the Winter, 2000 (Vol. 8, No. 1) Issue of Compost Science & Utilization.

Results included:

- Year to year variability in onion yields was reduced in compost-amended plots;
- > Yields from non-amended plots fluctuated more than compost-amended plots in response to variable weather from year to year;
- Incidence of soft rot disease was reduced in compost-amended plots; this was especially evident in susceptible cultivars and in wetter-than-average years when more disease was present;
- On a sandy soil, more than one year of leaf compost amendments at 50 T/A was required before some disease suppression was observed;
- Compost increased the yields of most onion cultivars after more than one year of compost amendment;
- Greater yields may be achieved sooner with a more nutrient-enriched compost;
- After 2 to 3 years of compost amendment, treated plots produced a greater percent of colossal and jumbo onions.

(Schwartz)

VEGNET REPORT

During May of 2000, rainfall varied from more than 2 inches in the Front Range, to less than 1 inch in northeastern Colorado, to less than one-half inch in southern and western Colorado. The first week of June has seen only a trace amount of rainfall throughout the state. Rainfall reached nearly 3 inches at Alliance, compared to less than 1 inch at Scottsbluff and Champion, Nebraska during May. Torrington, Wyoming recorded nearly 1.5 inches in May but no rain since; and Tribune, Kansas has only experienced a trace amount of rain from May 1. The regional weather forecast predicts below average rainfall and above average temperatures for the next week.

Early-season challenges have already included soil crusting from wind-driven rain and freeze damage to onion, sugar beet and potato in northeastern Colorado. Warm conditions after planting should minimize soil-borne emergence problems for dry beans; however, avoid water stress post-emergence to promote vigorous healthy root systems.

There are no reports of foliar disease problems on potato, sugar beet, onion or bean at this stage. Continued warm, dry conditions will reduce the threat from early-season fungal and bacterial pathogens during the vegetative stages of plant development.

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Please share sightings of pest problems by calling the CSU VegNet Team at 970-491-6987 (Howard Schwartz), 491-7846 (Mark McMillan), or 491-0256 (Kris Otto). (Schwartz)

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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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