WASTE MANAGEMENT GUIDELINES FOR Commercial Seed Protectant Services

1998

Commercial seed treatment operations can be managed so that the need for waste disposal often associated with the seed treatment process is eliminated. Through effective product and process management, waste generation can be minimized and "waste" products can be salvaged for productive use.

Waste disposal presents an unnecessary nuisance and expense for seed plant operators. The minimization and use of seed treatment wastes provides a cost-effective management practice that will reduce operating costs and prevent environmental contamination.

The following guidelines were prepared by the Seed Protectant Industry (the Alberta Seed Cleaning Association); Gustafson; Alberta Agriculture, Food and Rural Development; and Alberta Environment. The intent is to develop clear, practical waste management options for commercial seed treatment plants throughout Alberta.

Dry Waste

The seed treatment process can generate caked lumps or flakes consisting typically of broken bits of seed, dust and chaff bound by dried seed treatment. These may be removed by screening the seed following treatment to prevent fouling of seeding equipment, or may be removed during cleaning of the equipment.

The following practices are recommended for managing waste materials:

- (1) Bulk custom treating The farmer should receive back "everything delivered." The treater should be cleaned of any leftover seed after treating each farmer's load and the cleanings added to the load to avoid unnecessary accumulation of waste seed.
- (2) Screened lumps or other dry waste from the treating process should be accumulated in a bin or mini-bulk bag which is clearly marked as "seed treatment leftovers" and tagged with a treated seed tag identifying the treatment in accordance with the PCP Act.
- (3) "Seed treatment leftovers" can be seeded to land designated for pasture or for silage

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production. "Seed" should be thoroughly incorporated at time of seeding using a cultivation method such as harrowing. Seeding rates must not exceed three times the maximum recommended rates.

(4) Do not feed livestock or graze livestock on "green feed" from areas seeded with treated seed for period specified on a product label or for 4 weeks, whichever is longer.

Liquid Wastes

Small amounts of liquid waste may also be generated by cleaning or rinsing pesticide containers, transfer lines, storage tanks or metering systems.

- (1) Triple rinse all water-based seed protectant pesticide containers with three rinses of two per cent of the volume of the container. Add the rinsate from the pesticide container to the pesticide mixture and adjust application volume accordingly by six per cent.
- (2) Solvent-based seed protectant (i.e. Vitavax Single⁷ or Vitavax Dual⁷ Solutions) are incompatible with water. Do not triple rinse. Drain containers thoroughly before taking to a container collection site.
- (3) Rinse water used to clean the treater should be added to the pesticide mixture to a maximum overall six per cent dilution.
- (4) Contact pesticide manufacturers regarding the disposal of empty commercial drums. Vitavax drums will be picked-up by the manufacturer.

All bags containing treated seed should be clearly marked "DO NOT RE-USE." Empty bags that contained treated seed can be disposed of at Class II landfills.

Disposal of Treated Seed

Please see the fact sheet "Disposal of Treated Seed".

Spills

Dry spills can be managed by sweeping up spilled materials for re-use. Liquid spills must be absorbed with a material such as kitty litter or a commercial absorbent for chemical spills. Waste spill cleanup materials containing carbathiin or thiram can be disposed of at a Class II

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landfill. Waste cleanup materials in excess of five kilograms containing insecticides (lindane, carbofuran, or terbufos) are hazardous waste if leachate test values are exceeded. Hazardous waste cleanup materials can be disposed of at a Class I landfill if the landfill owner is willing to accept the waste. Any spills of seed treatment products (dry or liquid) outside the boundaries of a commercial seed treatment facility must be reported to Alberta Environment (1-800 - 222 - 6514) to ensure proper clean up.

For further information, please contact any of the following Alberta Environment offices:

Grande Prairie (780) 538-5460 Fax: (780) 538-5336 Room 1701, Provincial Building 10320 - 99 Street, Grande Prairie, Alberta T8V 6J4

Red Deer (403) 340-5310 Fax: (403) 340-5022 3rd Floor, Provincial Building 4920 - 51 Street, Red Deer, Alberta T4N 6K8

Calgary (403) 297-7602 Fax: (403) 297-8232 2nd Floor, Deerfoot Square 2938 - 11 Street NE, Calgary, Alberta T2E 7L7

Lethbridge (403) 381-5511 Fax: (403) 382-4008 2nd Floor, Provincial Building 200 - 5 Avenue South, Lethbridge, Alberta T1J 4C7

The above offices can also be reached by phoning 310-0000 toll-free from anywhere in Alberta.