BEST MANAGEMENT PRACTICES (BMP) FOR CONTROLLING FUSARIUM GRAMINEARIUM

MANAGEMENT OF FUSARIUM GRAMINEARIUM IN CEREAL GRAIN PRODUCTS INTENDED FOR USE AS FEED:

The Best Management Practice to prevent the establishment of fusarium graminearum in Alberta through feed grain is to ensure that all out of province feed grain has been tested and certified to be free of fusarium graminearum before being allowed for use in the province. (The MD of Taber's Agricultural Service Board recommends this testing.) With Alberta's feed deficit situation, feed importation is necessary and testing of all feed is impractical. To minimize the risk of spread of fusarium graminearum through imported grain it is recommended that the following Best Management Practices be adopted.

These recommendations apply only to those operations handling feed grain that has not been tested and found free of fusarium graminearum.

- Out of province feed grain should not be stored in uncovered piles or in contact with the soil.
- All loading/unloading sites handling out of province feed grain use both a wind fence and drop sock when loading or unloading grain to prevent grain or grain dust blow off from the loading/unloading site.
- Out of province feed grain should be unloaded in such a manner that spillage does not occur. Grain should not come into contact with the soil.
- All modes of transport of out of province grain should be securely covered to prevent spillage of grain during transport.
- All transport vehicles/units hauling out of province grain should have the box/trailers/cars thoroughly swept clean of any residual grain and gates closed before they leave the unloading site. The swept material should be placed in a compost site until that material reaches a temperature of 60 to 70 degrees Celsius for two weeks. This ensures that any fusarium graminearum is killed.
- Out of province grain should not come in contact with soil during feeding. Range feeding livestock is not recommended. Bunk feeding is the recommended method.
- If grain is spilled at anytime during the feeding/handling process it should be completely recovered and composted.

BEST MANAGEMENT PRACTICES OF FUSARIUM GRAMINEARUM INFESTED FIELDS

If Fusarium Graminearum is found in a cereal/grass crop, the following recommendations will apply.

-Prior to maturity, infested crops should be cut and ensiled immediately. Ensure that the load is securely covered to prevent spillage during transport. The silage can be fed to cattle in such a way as to prevent spillage of silage onto the soil

- In mature crops, the grain can be harvested and fed to cattle. Ensure that the load is securely covered to prevent spillage during transport.
- Remove any crop residue from all equipment before leaving an infested field.
- Incorporate cereal/grass residue in the soil after harvest. If soil erosion is a problem on the land, cultivation can be delayed to just prior to planting a non cereal/non grass crop in early spring.
- The following season, use shallow tillage or direct seeding of non cereal/non grass crops to avoid bringing infested crop residue to the surface.
-Control volunteer cereal and grassy weeds on infested land, including headlands.
- Keep Fusarium Graminearum infested land in non host crops such as canola, alfalfa, clover or peas for a minimum of three years following the detection of the disease.
- It is not recommended to use corn in the rotation with small grain cereals. Corn is also a host for Fusarium Graminearum.
-After a three year rotation, disease free cereal seed from a cultivar that has low susceptibility to or resistance to Fusarium Graminearum and is treated with a recommended fungicide can be planted.

BEST MANAGEMENT PRACTICES FOR THE TRANSPORTATION OF CEREAL GRAIN

- It is recommended that all cereal grains, including seed, transported in the province be securely covered. No grain should be allowed to blow off the vehicle while in transport.
-If importing cereal grain intended for use as seed it is recommended that the seed be either treated with a fungicide or have a certificate confirming that the seed was tested and found to be Fusarium Graminearum free.