

Healthy Grass Keeps Cows Fed and Weeds Dead

Weeds are unwanted plants that compete for nutrients, light and moisture. In unhealthy pasture stands weeds can quickly take over leaving a very weedy pasture. Some of the weeds that can affect pastures are Canada thistle, tansy, tall buttercup, scentless chamomile, leafy spurge, etc. Usually when invasive weed species move onto a pasture it indicates that there are other problems such as low fertility, overgrazing or moisture issues that should be addressed.

Many times when producers see that their pasture is being invaded by weeds they think that the only option is to work it and start over again. With the price of fuel and equipment this is an expensive option for controlling a weed problem. Some pastures may not be accessible for working or are so rocky and hilly that it causes too much damage to equipment. There are various control methods that can be used without having to work up pasture land as long as the producer is willing to manage the land differently than before. There are no simple answers to weed control it depends on each specific situation. The key to controlling weeds in a pasture is to ensure that the soil is healthy.

Some of the options to controlling weeds are:

Herbicides - There are products on the market that will remove many broadleaf plants from the pasture system which will include pasture legumes such as alfalfa and clover. Herbicides are a quick and effective method of removing weeds but this system only removes the weeds it does not increase the health of the pasture system if management strategies are not changed.

Biological Control Agent - This is the use of an insect or disease that attacks a specific weed. Each weed will have a different control agent therefore there is little risk that they will damage beneficial pasture plants.

Grazing - By changing the way the pasture is grazed the cows can be encouraged to graze the weeds. Producers need to be careful not to graze toxic weeds. As well, excessive grazing periods should be avoided. Once the area has been grazed it should be left for proper re-growth which may mean grazing only once in the season.

Trampling - If grazing weeds is not a preferred method, weed trampling may be an option. Luring cattle to the weedy areas with mineral, water or portable shade will create a lounging area so that the cows will trample and defecate on the weeds. This will also add nutrients in the area promoting the grass to be more competitive.

Things to think about this Month:

- Weed Control in Pastures
- Grazing Management
- Manure Spreading
- Living Together Wetlands and Crops



Continued on next page...

Healthy Cows...

Mowing - Mowing the weedy areas before they have flowered or seeded out will reduce the number of weeds present in the pasture. It will eventually reduce the seed bank and damage perennials so they are not as competitive.

Increasing organic matter - By giving the pasture a rest the grass will return plant litter to the soil. This litter will break down and be put back into the system as organic matter. This organic matter will hold moisture, decrease temperature and increase the soils overall health.

Fertility - By adding fertilizer to the pasture the grass species will be given a better chance to out compete the weeds. The fertilizer used can be synthetic granular, manure, or compost. If manure is readily available this may be the most economical method. Producers need to ensure that fertilizers applied do not leach or run into adjacent water systems.

There is no set system that can be followed to ensure pastures remain healthy and weed free. It is dependent on each producer's situation. The most important thing to remember is healthy plants will produce healthy cows and reduce weed infestations.

"The key to controlling weeds in a pasture is to ensure that the soil is healthy."

Grazing Management

A grazing system is a plan for managing when and where livestock graze. Some of the aspects of good grazing management are:

- Keeping the pastures covered with desirable and healthy forages
- Support the increase or maintenance of livestock production capacity and wildlife habitat
- Improve water-holding capacity of the land base and prevent rapid runoff of rainfall
- Control soil erosion
- Balance forage supply with livestock production

The benefits of good grazing include:

- Removal of older plant material that is less vigorous
- Increase light available to lower, younger leaves
- Improves water conservation
- Recycles nutrients through manure and urine



Spreading Manure

Through the Alberta Agricultural Operation Practices Act (AOPA) there are rules pertaining to manure application. These rules encompass:

- Incorporation requirements
- Minimum setback distances for manure applied on forage, direct seeded crops, and frozen or snow covered land
- Nitrate—nitrogen limits
- Salinity constraints
- Nutrient management plans
- Manure handling plans

When manure is to be spread these rules must be reviewed to ensure that they are being followed. Even if setbacks are met, reasonable care and attention should be taken to reduce the amount of manure that may enter common bodies of water as a result of snowmelt runoff.

Coming Events

- Electric Fencing Clinic September 10, 2008 Duffield, AB
- Well Abandonment demonstration — Date and location TBD
- Septic System Management Workshop — Date and location TBD
- Alternative Energy Tour — Date and location TBD

Living Together Wetlands and Crops

Having a dugout, creek, river, lake or wetland in a field can be bothersome. Many producers try to farm right to the edge, drain or straighten wetlands. This is done to maximize on the number of acres being farmed and the ease and efficiency of field operations. However, leaving wetlands in the system have many positive benefits for the crop land and the water system.

Healthy wetlands have an area around it called a riparian area. The riparian area is the green zone around lakes, wetlands, rivers, dugouts and streams. The plants grown in a riparian area are different than the ones grown on the adjacent cropland and pasture. These riparian areas only make up about 2-5% of the total land base but are very important to the ecosystems.

It is important for producers to protect riparian areas, which perform many important functions that can benefit the ecology, and the profitability of the cropping system. Some of the benefits of a riparian area on crop land are:

- Increased moisture to the land. The water in a riparian area infiltrates and spreads outwards and downwards to recharge ground water and increase soil moisture in the surrounding areas.
- Decrease the magnitude of floods and reduce damage from high water levels.
- Filter runoff, trap nutrients and agricultural chemicals which reduces the risk of water contamination.
- Trapping and storing sediment and protecting the banks and shorelines from erosion which adds to the stability of the crop land.
- Reduce concentrated salinity problems; if a wetland is drained it can be a source of minerals and salts to adjacent productive crop land.
- Provide habitat for fish, wildlife and plants.

A healthy riparian area contains vegetation that will cover the soil and contribute deep rooted stability. A healthy riparian area will have few or no weeds. In a cropping situation keeping riparian areas healthy can be difficult. It is recommended that a buffer area be planted to ensure the riparian areas stay healthy. A buffer area should be approximately 100 feet in width between the riparian area and cropped land. The plants in these areas can be grasses, legumes or shelterbelt shrubs and trees. The buffer area protects the riparian area but also traps snow and adds moisture to the cropland.

Besides planting a buffer strip some of the other things that can be done to protect the riparian areas would be leaving the riparian area in its natural state, minimize compaction of soil, avoid draining wetlands and/or cropping through them. If the field has too many sloughs throughout, and draining seems like the only alternative, consider consolidating the wetlands by draining them all to one slough on the field. This will make the field easier to farm while still retaining most of the ecological benefits of the wetland. Grass all waterways, and ensure there is a permanent cover on the soil using a perennial forage or zero till and eliminate summer fallowing. Put forages in the rotation to help improve soil structure and reduce runoff. Be conscience of nutrient and pesticide application near the wetlands and be aware of potential runoff to avoid contamination of water sources.

By letting riparian areas do their job it won't take long to see the benefits of a healthy functioning system, benefits both in the ecology and the cropping system will be seen.