



Agri-News

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Green Feed and Early Frost

An Alberta Agriculture specialist says that producers need to be wary of an early frost and the effect it can have on green feed.

“Nitrates accumulate over time in a frost damaged crop,” says Barry Yaremco, beef/forage specialist, Alberta Agriculture and Rural Development. “Typically, the highest accumulations occur four to five days after frost. It is best to cut or harvest the crop within one day of a light or injuring frost.”

Nitrate is the form of nitrogen that plant roots take up from the soil. It is transported to the leaves where it is eventually converted into protein. Frost can interrupt this process allowing excess nitrates to accumulate in an injured plant.

“The plant’s root system doesn’t realize the top has been injured, and continues to push up nitrogen as normal” explains Yaremco. “However, the damaged top cannot use these nitrates, and they begin to accumulate in the plant.”

Nitrate levels will gradually decline 10 to 14 days after the injury as the plant resumes growth and repairs itself. Plants killed by the injury or stress will not be able to decrease their nitrate levels.

“A killing frost completely destroys the entire system that moves nutrients up into the plant,” says Yaremco. “As such, a killing frost is better than a light one, as it eliminates the problem of nitrate accumulation.”

Yaremco says the same rules apply for swath grazing. “If the crop is not mature enough for combining and it’s a light frost, you want to swath it within a day or two. If it’s a killing frost, watch the leaves. You want to delay the cutting if the weather is poor. You need to cut the crop when you see the leaves starting to drop off, in order to save the quality.”

For more information, Alberta Agriculture has a number of documents on its website at www.agriculture.alberta.ca, including Nitrate Risk in Forage Crops. Producers can also call the Ag-Info Centre at 310-FARM

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Agricultural Soil Compaction

While soil compaction is not widespread in Alberta, it can be a serious and unnecessary form of soil degradation.

Soil compaction occurs when the weight of heavy machinery compresses the soil, causing soil pore space to be reduced. Wet soil conditions increase soil compaction.

“Plants have difficulty in compacted soil,” says Dr. Ross McKenzie, Alberta Agriculture and Rural Development. “As soil particles are compressed together, the space between particles is reduced, with less space available in the soil for air and water.

Soil compaction can occur at the soil surface in the form of soil crusting or can occur in the subsoil. “Soil compaction is sometimes blamed for reducing crop productivity but it is important to correctly diagnose the cause or causes of reduced crop production,” says McKenzie. “The first step is to decide whether a soil compaction problem exists, and then, if it does, develop short and long-term management practices to prevent further soil compaction.”

Compaction of agricultural soils can be caused by various farming practices:

- Soil tillage removes the protective residue from the soil surface leaving the soil prone to natural environmental forces while excessive soil tillage will cause surface soil to degrade. These tillage practices can lead to soil crusting, causing the surface soil layer to become hard and compacted after heavy rain or irrigation
- Soil tillage implements can induce soil compaction just below the depth of tillage, forming a compacted layer called a “hard pan.” The hard pan can be much worse if soils are cultivated when moisture content is higher.
- Weight of large farm equipment (tractors, seed carts, combines, trucks, manure spreaders) can cause wheel traffic compaction to a considerable depth within the root zone. As soil moisture content increases, so does the depth and severity of soil compaction.

“Generally, compaction of agricultural soils isn’t a serious problem in Alberta,” says McKenzie. “However, preventing soil compaction is far better than trying to correct a compaction problem after it occurs.”

There are a number of management options that can help minimize soil compaction:

- Keep a protective residue cover on the soil surface to reduce the chance of rain or irrigation water causing soil crusting.
- Use direct seeding practices to increase soil organic matter content. This will help optimize soil structure and reduce the potential of soil crusting.
- Direct seed to avoid developing a tillage “hard pan” (layer of soil just below tillage depth).
- Reduce the potential for development of compacted soils by eliminating cultivation and reducing field traffic. This will also help increase crop water use efficiency and crop yield potential.
- Take advantage of the natural soil processes of “wetting-drying” and “freeze-thaw” cycles to minimize effects of soil compaction.
- Use a combination of fibrous and tap rooted crops in a rotation to penetrate soils, develop deep root channels and add organic matter to soil.
- As far as possible, avoid field traffic when soils are wet. This can be difficult, especially when harvest schedules dictate the crop must come off despite wet field conditions.
- Reduce the wheel traffic load on the soil. This can be done by keeping axle loads below five tons per axle. Use radial tires at low inflation pressures to create a larger footprint.
- Minimize the field traffic on fields. Load wagons or trucks on a road (if it can be done safely) or on headlands.

“Ideally, farmers should carefully consider their soil management and cropping practices to ensure prevention of soil compaction,” adds McKenzie.

For further information contact the Alberta Ag-Info Centre toll free in Alberta at 310-FARM (3276).

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New Blueprint for Woodlot Management and Agro-forestry

Landowners around Weberville, Alberta, are building on a successful pilot project and finding new ways to work together.

For decades, trees on privately owned land have been an underappreciated resource for Peace Country landowners and the forestry industry. The value of the resource is obvious, but with thousands of individual owners and an incomplete understanding of tree populations, meeting its potential has been difficult.

Recently, a group of landowners near Weberville, northwest of Peace River, decided to see what they could do to try and improve the situation.

“The starting point is to know what’s there,” says Juri Agapow, president, Weberville Community Forest Association, Peace River “You need to know which and how much of each species of trees are on your land and what sort of age classes of trees you have. You need a detailed forest inventory.”

In 2008 and 2009, the Weberville Community Forest Project looked closely at the resources and opinions of 80 different landowners with 45,000 acres in total. The project was led by Agapow, and by Doug Macaulay, woodlot extension specialist with Alberta Agriculture and Rural Development.

This research found that most owners wanted to tap the economical, ecological and social values of their woodlots in the future, consistent with good stewardship principles. The landowners identified harvesting, bio-fuel, recreation, carbon credits, tourism and wildlife conservation as potential revenue generators.

When the core project study was complete, the landowners’ group decided to keep going, organizing themselves as the new Weberville Community Forest Association, with Agapow chosen as their first president.

“The landowners can achieve as a group what would be difficult or impossible as individuals,” says Agapow. “As a not-for-profit organization, the association can apply for provincial, federal or corporate grants for research or business development. The association can also build profile for agro-forestry issues among the media and the general public.”

The members of the group are currently exploring how their lands can form the basis for a tourism offering. In collaboration with the Alberta Snowmobile Association, they are already working to build a recreational trail through the area that connects with the Peace River and other communities.

After two years of laying the groundwork, the Weberville group has a committed membership, an accurate inventory of trees, and growing recognition in the community forest movement. The Weberville Community Forest Association has already been invited to become the 16th member of the Canadian Model Forest Network.

“Typically, individual landowners have lacked the critical mass to manage their trees optimally,” says Agapow. “As the Weberville Community Forest Association is showing, it doesn’t have to be that way. Private landowners, working together, can create a new model of sustainable development – not just in the Peace, but well beyond.

“Once this approach gets going here in the Peace, it could really work anywhere. We have created a template that other areas can use. They can skip the growing pains we had, and benefit from the lessons we learned along the way.”

A on-line video on the Weberville Community Forest Project is available at www.rtw.ca/302

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Importance of a Business Plan

A well thought out and carefully structured business plan is the key to the long-term success of any business.

“Whether you are just starting a business, buying one already established or perhaps in need of extra finance for expansion, you’ll need a business plan,” says Kathy Bosse, new venture specialist, Alberta Agriculture and Rural Development. “A business plan contains the reasons why these goals are attainable and a roadmap for reaching them.”

Gwen Simpson owns and operates Inspired Market Gardens near Carvel, Alberta. When she first started the operation in 2004, she didn’t have a full-scale business plan in place. As Inspired Market Gardens developed through its early years, she wrote her first true plan in 2007.

“When you start out, you don’t expect that your business will change,” says Simpson, who grows and sells organic culinary herbs and edible flowers, both on the farm and through farmers’ markets. “As you get into it, though, you see how much things are going to change. That’s where the plan is important - so you can reflect, adjust and make better decisions.”

What can change from year to year? In Simpson’s case, today’s local food craze was nowhere to be seen six years ago. Consumers’ newfound desire to eat well, eat fresh and eat local has boosted the prospects of farm-direct marketers like Simpson. As this trend developed, Simpson’s plan helped her keep pace.

The main sections of a business plan cover issues relating to production, marketing, people and finance. To Simpson, the first three came easily. Finance was trickier. Still, the business planning process demanded that she give finance the same attention as areas that came more naturally. Over time, Simpson gained greater experience around financial planning and considers it the most important element of her plan today.

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“I’m now focusing on full-cost accounting which is about allocating all expenses against the product you’re producing,” notes Simpson. “It helps you establish a true sense of what it costs to produce, including the cost of labour. That is important, because a lot of us in agriculture don’t place enough value on our own time.”

“Think of a business plan as a roadmap for your enterprise,” says Bosse. “I’m a big believer that if we fail to plan, we’re planning to fail. It’s human nature to focus on the idea behind the business, but it’s important to think hard about your product, your customer and the economics of what you’re doing.”

“Some will point out that many farm families have managed perfectly well without a formal plan for years. Why write one now? Well, farming and agribusiness these days are more complex than ever, and margins can be very tight. A good plan can make the difference between getting by and getting ahead.”

Bosse recommends gathering all the business’s stakeholders around the table to discuss the main elements of the roadmap. “Let one person write a draft for the whole team to review. This allows the group to iron out their differences before the plan gets to its final form. Then, meet at least twice each year to review progress and look ahead. Beyond the plan itself, the process of planning will pay dividends.

“If you don’t have a business plan, everyone may have a different understanding of what you’re trying to do and how you’re going to do it,” adds Bosse. “With a written plan, everybody’s on the same page.”

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Do You Have Your Farm Safety Plan in Place?

An Alberta Agriculture specialist says that a farm safety plan is an important part of a well developed farm business plan.

“A farm safety plan is a hard copy document of policies, procedures, rules, diagrams, maps and contact information for anyone living or working on a farm,” says Kenda Lubeck, farm safety coordinator, Alberta Agriculture and Rural Development. “It’s also an agreed and communicated way of doing things that creates a safe and productive environment for those working and living on a farm.”

Most farmers are familiar with common hazards on the farm, but these hazards need to be openly recognized in the farm safety plan. Once identified, steps can be taken to reduce or eliminate the risks associated.

“Each farm is different, and the plan should be tailored to your farming operation,” says Lubeck. “However, it should also contain some basic components that are common to all plans.”

The farm safety plan should ensure that machinery and equipment are inspected at the end of each season of use, and repaired and adjusted as required. A good time to conduct general inspection, lubrication, oil and filter changes, and necessary maintenance work is at the end of seasonal operations. Be sure to follow manufacturer’s recommended maintenance requirements during working periods.

“It’s also vital that the work team shares information and provides feedback,” says Lubeck. “Discuss ahead of time hazards recognized with the job and how to reduce risks. Identify a course of action in case of an emergency. Have contact information ready and available for each individual involved in the operation. Write everything down and share the document with family and team members.”

Provisions for ensuring workers’ health should also be included. “It can be difficult to maintain proper eating and sleeping routines during the hustle of harvest season and fall work,” says Lubeck. “It is important for a safety plan to address this to help keep everyone alert and functional on the job.

“Drink hydrating fluids (stay away from alcohol), eat healthy meals at regular intervals, take breaks to clear your mind and get some quality sleep. The busy season is no time to come down with a cold. Every so often take a few minutes to stretch muscles as this will help prevent muscle strain and fatigue.”

In the safety plan, incorporate training and education for workers into the schedule. Courses such as ATV operation, trailer towing and animal handling can ensure workers have the skills to safely and effectively perform tasks. It is also beneficial to have someone trained in first aid on the job in case of an emergency. Often courses such as these are offered through community organizations or through post secondary institutions.

“It takes some coordination, but putting together a safety plan should be part of every farm work strategy, just like budgeting or production planning,” adds Lubeck. “Some procedures, like driving a vehicle, take a conscious effort on safety – while others, like putting on a seatbelt, are part of every day life. Bottom line is that safety should always be intentional.”

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Agri-News Briefs

International Society of Arboriculture 2010 Prairie Chapter Conference

The International Society of Arboriculture 2010 Prairie Chapter Conference takes place September 29 to October 1, 2010, at the Bessborough Hotel in Saskatoon. The theme for this year's conference is "Bridging People and Trees." The focus of the conference will be on the connection between people and trees within the urban environment. Registration is \$425 plus GST. For more information, go to www.isaprairie.com. For reservations at the Bessborough Hotel, call 1-800-268-1133 or 1-306-244-5521 and mention the International Society of Arboriculture.

Nomination Deadline Approaching for 2011 Outstanding Young Farmers Program

Nominations for the 2011 Outstanding Young Farmers Program within the Alberta/NWT region close on October 15, 2010. Canada's Outstanding Young Farmers' Program is an annual competition to recognize farmers that exemplify excellence in their profession and promote the tremendous contribution of agriculture, and rural Canada. Nominees may be an individual, couple or managing partner/shareholder of a farm group. To qualify, the nominee must derive a minimum of two-thirds of their gross revenue from farming and not have reached the age of 40 as of January 1 in the year of competition. One farmer or farming couple will be selected to represent the Alberta/NWT region at the National Awards Program, to be held in Brandon, Manitoba November 14 to 20, 2011. For more information, go to www.oymfAlberta.com, or contactCarolynn Marshall at mail@oymfAlberta.com, by phone at 403-224-2077 or by fax at 403-224-3150.

Dairy Cost Study

The Dairy Cost Study: The Economics of Milk Production 2009 is now available from Alberta Agriculture and Rural Development's Publications Office. The Dairy Cost Study is an analysis of the costs and returns of a sample of Alberta dairy producers for a given production year. This 65-page report was prepared from the farm records of 51 milk producers in Alberta who volunteered for the 2009 Dairy Cost Study. It includes sections on production factor analysis, detailed management factors, historical economic trends, impact of quota value on dairy returns, and more. To get a copy of the booklet, phone 1-800-292-5697, e-mail publications.office@gov.ab.ca, or write Alberta Agriculture and Rural Development, Publications Office, 7000-113 Street, Edmonton, Alberta, Canada, T6H 5T6.

Correction

The September 20, 2010, issue of Agri-news contained an article stating that Alberta 4-H had instituted a helmet policy for their equine events. This article was incorrect. The Alberta 4-H Council is considering implementing a mandatory helmet policy, but at this time there is no such policy in effect.