

Watershed Management Rycroft Oct. 31/16

By: Mackay Ross

Marsha Trites-Russell with Wetlands Specialist with Alberta Energy and Utilities Board

When constructing/working on the land, Wetlands should be; Avoided, Minimize disturbance, or Replaced. Prior to 2015 the replacement was done at a 3:1 factor, since then a scale dictates value between 0.125:1 and 8:1.

Wetland values vary which impacts replacement; if there are a large number of the same type of wetland nearby, then the replacement requirements will be lower.

Alberta has lost an estimated 75% of it's wetlands in the white zone.

The province is going to increasingly put the wetland management on the counties[Ⓜ]

wetlandsalberta.ca is a great resource.

Jay White, Wetlands Specialist, Owner of Aquality Environmental Consulting

A quick review of an excellent day discussing wetlands with him in Grande Prairie back in the spring.

County needs to map it's wetlands.

Les Klerke

Trends in consumerism.

Who is making the decisions? Consumers? MacDonalds makes most off the rules.

Agriculture is a business, if you are not in it for the profit, you won't farm long. Or if you have off farm income, you will only get as far as that money into the farm will take you.

Brazil is the major agriculture competitor and Portugese is the eighth most used language on the internet yet only 220-260 million people in the world speak Portuguese.

Shelterbelts to Eco-buffers; Attracting beneficial insects to your property

Luke Wonneck of the Agroforestry & Woodlot Extension Society

By: MacKay Ross

Prairie Farm Rehabilitation Administration established in 1935, over 2000 km of shelterbelts planted in the 30's to slow soil loss and evaporation. Shelterbelt centre (1901) and Experimental farm (1905) were established allowing instant, effective, shelterbelt production then and until PFRA was closed in 2013. Since 2013 many organizations have filled the vacuum left behind, including Clear Hills County☺

Shelterbelts are being removed at an alarming rate, mostly due to larger equipment but also due to age and lack of perceived benefit.

How relevant are shelterbelts today? Studies are ongoing and past studies reveal up to 32.7% of a piece of land can have natural or semi-natural area before the yield is negatively influenced.

Direct benefits; soil conservation, snow management, shelter (farm yards and livestock), mitigates airborne contaminants and odours.

Indirect benefits; water quality and ground water recharge, carbon sequestration, food/fuel/timber, visual barrier (privacy), wildlife/beneficial insect habitat.

Goal setting and site assessment;

1. What are we sheltering and how well?
2. How much space for the shelterbelt do we have?
 - A. 5-row are 80' wide full grown.
 - B. 3-row are 50' wide full grown.
3. Prevailing winds, which direction during what time of year?
4. Soil texture, compaction, salinity and moisture?
5. Light? Present (open or beside existing trees/buildings) and future (after fast/tall trees are full grown)?
6. Obstacles? Deep/wide roots stay away from buildings, don't plant under or over utilities!
7. Threats to seedling survival?
 - A. vegetation competition
 - B. Browse/trampling from livestock potentially wildlife?
 - C. Drought/flooding.

Design;

1. Start drawing☺ use GIS images (google map, etc.)
2. Orient perpendicular to winds.
3. 2 legs are better than one (not just an I shape, make L shape whenever possible).
4. Make it long and continuous.
5. Density; 40-60% in row, as many rows as possible 3-5 or more, vary species.

6. Make a "ramp, not a wall" windward side should start with Shrubs then short growth deciduous, then tall deciduous (conifers in 3-row shelterbelt), then conifers x 2 (in 5-row Shelterbelt)
7. Snow management; most snow dumps within distance from shelterbelt that is 2x the Height. 8. Ensure longevity; plant short and long lived species, leave enough space between and in row, diversify!

We did a quick look at our plans for shelterbelts on our land. Luke walked around and gave pointers and ideas to help out. Then ran through a demonstration of an actual plan on a farm yard and surrounding quarter.

Site preparation is key; reduces competition for light, nutrients, water from current vegetation, alleviates soil compaction.

Fall work; Stake out rows, deep rip(?) till clumps are gone, glyphosate can assist with lumps.

Spring work; till a couple more times (lots apparently), seed non aggressive ground cover (native grass, sheep fescue?, legumes?), Plant Seedlings, then apply plastic mulch, (I was surprised that you plant first then mulch) there are a few organic mulches such as paper, straw, pulp mats, grass clippings.

Handling seedlings properly is very important. Only bring out the box you will plant now, leave the box for planting in an hour in the shade, rent a planter if possible, buy a planting shovel if necessary (foot pack to reduce air pockets), try to plant before it rains or water right after.

Weed control especially in the first 3 years, mow, till(only first 3 years), spot spray.

Fill in gaps, cuts down on weeds and make wind break effective.

Eco-buffers

Even more diverse, trees, shrubs, forbs especially native. Plant to mimic nature, smaller in row spacing, rows closer together, connect, (whenever possible) with native area. Plastic mulch doesn't work well as we want suckering, light till between rows first 1-2 years stimulates suckers.

Advantages

Less long term weed control 1-2 years max. No need to replace "holes" naturally regrows, due to suckering, 500 plant at seeding eco-buffer can have 5000 plants after 5 years.

Additional/improved eco-buffer services, water quality enhancement, ground water recharge, wildlife/pollinator habitat, nutrient cycling (due to diversity), timber/fuel/food, pest suppressing insect habitat.

Shelterbelts and eco-buffers have evolved over a century of research and trial, both require thorough site assessment, thoughtful placement, tough site preparation and timely maintenance (at least in the first 1-5 years)

My note; Shelterbelts are for long distance, simple, cost effective wind protection. Eco-buffers are best. Use whenever possible (financially), they require more planting work but less maintenance (1-2 years), and offer more diverse benefits.

Buying and Renting Farmland

Lance Stockbrugger CA

By: MacKay Ross

Farmland values are high due to “not making any more”, neighbours buy on emotion, investor see it as a safe haven with decent ROI, lately gross crop receipts have been “high”, and low interest rates.

Rental rates simply hinge on what people are willing to pay. Some renters pay on gross profit from the land, if the farmer does well the landlord does well, shared risk.

Factors a renter needs assess; proximity to “home”, distance from land to storage (unless bags are used), quality (soil/drainage/obstructions/access), nothing better than a “retired farmer landlord” who will help out whether with labour or simply providing rides when needed. Additional costs, Legal fees for agreement, liability insurance (your current policy may cover it, double check), you must pay GST on rent (either to landlord or direct to CRA).

Crop Receipts vs. Rental Rates

	Yield	High \$	Med \$	Low \$		Yield	High \$	Med \$	Low \$
Wheat		7.00	6.00	5.00	Canola		12.00	10.50	9.50
Low	35	245	210	175	Low	30	360	315	285
High	50	350	300	250	High	40	480	420	380
Avg	40				Avg	35			
Cost per unit		242	242	242			296	296	296
Break Even Rental/ac									
Low		\$3	\$(32)	\$(67)			\$64	\$19	\$(11)
High		\$108	\$58	\$8			\$184	\$124	\$84

Source: Saskatchewan Ministry of Agriculture

Lance D Stockbrugger, CA

Can a farmer actually afford the rent? This chart shows the highs and lows. Net income per acer is half what it was in 2010.

Will rent stay where it is? Gross farm receipts are down, how long will grain prices stay down, low interest rates promote buying when possible but how soon will they go up?

Rental agreements need to include; write "everything" down (even if not a "legal" agreement, people forget/misinterpret), minimum 3 years, longer is better, ask for "First right of refusal" on purchasing (eliminates auction prices and costs to owner), renewal option (at the end of the 2nd last year minimum), long established rental, yearly renewal for the next 3 or more years, have a clause dealing with death of the landlord (rent splits between offspring, charity, write something down!).

Landlord relationships; stewardship values vary (find out what they are before renting if possible, some want soil conservation/growth, others want "clean" fields that may be cost prohibitive), landlord's reputation (accept that there are people who can't enter into an agreement together, the prospective landlord may be your best friend, that doesn't ensure success), communicate regularly with landlords (adjust to suit landlord within reason), Pay on Time (communicate ASAP if there could be an issue), gifts and gatherings go a long way, retired farmer want to be involved (whether that's operating equipment or simply giving rides), participate in landlord's investment prospective (let them know when you have bad, break even, bumper years, insure rental shows landlord ROI yet is realistic for renter).

Buying land; purchase payments will tend to be higher than rent (annually), annual property taxes, legal fees (one time), loan documentation fees (one time), yard maintenance/rent (potentially), liability insurance (?), land transfer fees (one time), risk of interest rates increasing.

Benefits of buying; eventually it will be paid for (rent is forever, however from what I can tell, one can rent for 50 years = to a 25 year mortgage), ability to add value (dugouts, fencing, etc.).

Purchasing; 25% down (equity or cash), amortization up to 25 years, "Cashflow Optimizer" pay interest only (30% of loan portfolio max), [my note, this is renting from the bank, what's the benefit to the farmer?], "Transition Loan" benefits vendor and purchaser, "Flexi Loan" allows a principle "holiday" once every 5 years (great for offsetting disasters, if you need it more than every 5 years, change what you are doing).

Allocate purchase price at negotiation, all buildings, storage etc. needs to be separated, highest value to depreciable assets, purchasers "tax" interests will be the opposite of vendors.

Title search; easement/leases, multiple names (be careful!), mineral rights, name on title not necessarily the owner, value on title (not likely the ACB [adjusted cost base])

Incorporating farmland; avoid at all costs, future rental income taxed at >50%, no capital gains exemption for corporations (\$1 million per person for private owners), land can't be transferred to specific heirs.

Recap; Know your cost of production to determine affordable rent, low interest rates have kept land cost and rent up, make sure your farmland qualifies for tax, GST implications on purchase or rental.

Do what's right for you and your farm.

Learnings from In Service Training attended by Greg Coon Dec 5-8, 2016

Monday Dec 5, 2016

-Attended the "Fieldman Orientation" session featuring Doug Macauley as speaker. This session is a requirement for new fieldmen in order to become certified. The session covered the history of the Agricultural Service Board Act and Agricultural Fieldmen in Alberta. It then went on to give a good overview of the key task areas and legislation that a fieldman is tasked with enacting and enforcing. This session was a very good starting point for a new ag fieldman.

- Attended "Policy and Resolution Writing 101" with Doug Macauley. He covered the 3 steps of good resolution writing as well as some good general writing tips. I have worked mainly in the private sector, so resolution writing wasn't something I have done. This course was helpful.

Tuesday Dec 6, 2016

-Attended "Effective Communication Skills For Supervisors" with Paula Goebel. She covered a wide range of skills and tips for effective communication that can be applied in all business as well as personal communication.

-Attended "Health Safety and Wellness; Latest Ideas from an Emergency Physician" with Dr. Louie Francescutti. Dr. Francescutti is a fantastic speaker. He covered a wide range of subjects around personal well-being and how important health and wellness is to your work and personal life. Plenty of humor and thought provoking questions kept the audience fully engaged.

-Attended "Biobeds for Pesticide Waste Disposal" with Tom Wolf. This presentation gave an overview of how to build a biobed from organic materials in a mulch to use for an environmentally sound method of disposing of leftover pesticide. He showed quite a number of different ways of building them as well as test results showing the effectiveness of biobeds that are in use today. I see value in bringing more information on biobeds back to our producers and perhaps have PCBFA facilitate a seminar on this .

-Attended "Introduction To Alberta Emergency Management" with John Lamb from Alberta Emergency Management Agency. He gave an overview of what AEMA does in regards to disasters and emergency events. The province is divided up into 7 different regions with each region having their own field officer. In the event of a disaster such as the Ft MacMurray wildfires, these officers act as liaisons' with all of the emergency services available in the province and can activate this help when needed.

-Attended "Application Technology" with Tom Wolf. Tom is a sprayer Specialist. He spoke about how to use nozzle types, different pressures and travel speeds to provide effective herbicide application. He did a very good demonstration on plant coverage and also a demo on pulse width modulation.

Attended "So You Want To Be A Weed Specialist" with Nicole Kimmel. Nicole is a weed specialist with Alberta Agriculture and Forestry. She gave a presentation on a Flowering Rush infestation in Lake Isle that she had to deal with and all of the extra steps and hurdles there was to deal with spraying a herbicide in a water body. A very interesting presentation.

Wednesday Dec 7, 2016

- Attended "Rural/Urban Relationships" with Kelly Cooley. Kelly gave a presentation about ASBs being in the best position to partner with urban jurisdictions to manage invasive species in the urban areas that border their respective municipalities. He used the County of Newell as a case study, which showed very positive results for both the urban and rural jurisdictions.
- Attended "Prairie Solar Opportunities" with Rob Harlan from the Solar Energy Society of Alberta. Rob gave a presentation that showed the science and economics of solar power and how it is becoming more economically feasible for producers. He included a great deal of facts and figures to back up his presentation.
- Attended "Starland County Solar Initiative" with Al Hampton. Al is an ag fieldman and farmer in Starland County. Al's municipality started with a solar initiative by powering some of their pumping stations with solar power. This garnered interest from producers in the area and the county provided information on setup, purchasing, and government funding available to producers. This prompted Al to set up a 10KW system on his farm and to this point, he is very pleased with the performance and economic feasibility of the system. I think promoting a solar workshop in our county would be beneficial to our ratepayers.
- Attended "Flowering Rush Project" with Cody McIntosh from Red Deer County. This was a similar presentation to Nicole Kimmel's presentation only this was more results oriented from the county's perspective. This weed is very difficult to control or eradicate. The County has had a tough time dealing with all the legislation involved but have persevered and have made good gains in controlling the infestation.
- Attended "Strategies to Control the Hazards of Grain Handling and Storage" with Glen Blahey from CASA. Glen presented some hazards associated with grain storage and some ways of eliminating these hazards. Many accidents and deaths result from improper handling and storage of grain in the country. These can be avoided with proper handling and storage techniques. CASA has a grain safety demonstration trailer, as well as other grain safety demonstrations that are available. I obtained Glens contact information after his presentation so that the County could investigate having CASA bring their grain safety trailer or one of their other demonstrations to our trade Show.
- Attended "Freemen Of The Land" with Christopher Perry. This presentation gave insight into the radical group that call themselves "Freemen on the Land" or "Sovereign Citizens" This group believes

that they are bound by statute law only if they consent to those laws. They often rent from property owners and then within a short time refuse to pay rent and refuse to leave the land, even going as far as somehow putting a lien against the land. This is good information to pass on to our weed inspectors to be aware that these types of people are out there and to use caution and follow the working alone procedures.

-Attended "Young Cattlemen in Alberta" with Emily Ritchie from the Canadian Cattleman's Association. Emily gave an overview of the young cattleman programs in Canada and some of the opportunities for young people in or interested in the cattle industry.

Thursday Dec 8, 2016

-Attended "Adapting To Climate Change" with Dave Sauchyn. This presentation dealt with historical data to show how much the climate has changed in the past thousand years. The content was very scientific in nature and I found it a bit hard to follow.

-Attended "Room For Every Farmer-A Global Perspective of Agriculture" with Brenda Schoepp. Brenda shared a lot of stories about her experiences in different parts of the world and how agriculture is viewed so much differently in other countries than it is viewed here. She gave examples of how having a small garden is considered agriculture in some countries and how this open minded way of thinking can be beneficial to agriculture in Canada.

-Attended "Cover Crops to Profit Above Ground and Create Wealth Below" with Grant Lastiwka. Grant presented information around how a good mix of cover crop cocktails can extend growing seasons as well as adding root matter and capturing nitrogen to benefit soil quality. He took us from the idea that "soil grows plants" to the idea that "plants grow soil" The longer period of time that green leaf plants are on the soil, the more carbon is captured, in turn creating diverse root systems which creates healthier soils.

-Attended "Buzz on Bees" with Maryam Sultan. Maryam's presentation provided very interesting information on bees and the biology of their hives. She elaborated on bee health as well as hive health issues, as well as some of the research being done at the Bayer Bee Care Center. She is a good speaker. She was well prepared and very informative.\

-Attended "The Challenges of a Disabled Man Growing Up in Rural Alberta" with Dausin Kluin. Dausin has Cerebral Palsy but he never let that get in the way of his dreams and aspirations. He became a world class arm wrestler and an inspirational speaker. A great feel good way to conclude the conference.