

The Sainfoin Story...

By: Brian Harcourt

Speaker..Dr. Surya Acharya...Lethbridge R&D Center.

The issue...To develop a sainfoin variety that will complement alfalfa and eliminate Bloat.

Alfalfa, being the Queen of Bloat.

The old variety "Nova" would not regrow nor set seed.

So began the five part process to develop a new variety.

#1, The Cult development.

#2, Forage quality.

#3, Inoculant.

#4, Agronomy.

#5, Seed availability.

Dr. Acharya used plants from all over the world and interbred them to find the ones that grow best in alfalfa.

He found that AAC Mountanview for southern areas but more research is needed to develop strains for northern farmers.

The new varieties must produce as much "DM--Dry Matter"as alfalfa and must regrow and set seed.

Direct seeding into alfalfa stands is being worked on the develop the best method.

Grant Lestiwka. P.Ag..Forage/Livestock Specialist, with AB, AG, & Forestry.

Question...What determines "Profits" in grazing?

--High stocking rates= High Profits.

High stocking rates can only occur in ideal pastures.

In an old field drill in the best cocktail mix you can find

and then manage it well, introduce Sainfoin to reduce the possibility of Bloat.

Suggests, birdsfoot treefoil, cicer milk vetch, hairy vetch, some brassicas.

All seeds combined should be about 15000 seeds per pound.

A firm seedbed is a must, seeds should 1/2 inch in.

"Graze it for profit above ground and below.

Sean McGrath..Meadow Lake, Sask...A Grazing Mentor.

Choose your legumes wisely, forage is a long term crop.

Must withstand all the hazards and the good parts of our weather systems.

Alfalfa is one tough plant.

He is going to add some sweet clover,sainfoin and milk vetch.

With his type of pasture bloat is not a problem.

For those who have a problem with bloat he recommends
Alfasure or Buffer to your water systems.
He never adds Nitrogen fertilizer to any of his pastures.
Overgrazing is the worst practice that anyone could employ!

Rod Vergouwen...Grazing Mentor..East of Calgary.

He farms 2200 acres, 400 acres in crops, 200 hay land,1500 in pasture, 150 cow/calf.
He grazes 3-5 days on each 50 acre paddock of alfalfa, brome and fescues.
He uses electric fencing, comment...cows know when it's not working!
Never takes a second cut off his hay lands, the plant need time to recover!
Winter he bale grazes.

Garth Hein..Electric Fence Specialist...www.gallagher.co...

The Power System..Volts=RPMs..Joules=HP.
Buy Joules.
For grounding use galvanized rods and clamps, 10 feet apart.
Do not use rebar or sucker rods, they rust.
Use 12,5 galvanized wire not copper.
Be at least 33 feet from a power line.
Do not connect to water system, metal building or a power source.
In winter you will need more power and more ground rods.
"Do not use Bared Wire"....!

Brian Parillat..Canfax marketing..403 275 5110.

Today all Markets are volatile!!!
Demand is driven by money not population.
Pounds of meat sold...#1 chicken, #2 pork,#3 beef.
Hog prices...way down...sales way up.
Beef price at the stores 2&1/2 times that of pork.
Cattle prices should move up during 2017.
Dec. 2014 was the high spot for cattle.
Cow numbers down to 30million in the US.
US produces 25million pounds meat monthly.
They import more than they export.
Our imports are down 9% y/y.

Soil Health and Carbon Day

By: Brain Harcourt

Put on by PCBFA....Speaker..Dr. Richard Teague.

Regenerative farming, 90% of soil function is accomplished by microbes.

Microbes depend on plants.

#1 factor is water in the soil which enhances the energy flow and the mineral cycle.

Paddock grazing rather than continuous grazing.

Try to adapt grazing to the weather conditions.

Short grazing days gives time for adequate plant recovery time.

Decrease bare ground as much as possible, "dark soil" = Carbon.

To accomplish this you will need to add more varieties of plant life to your pastures.

Microbes produce "exudates" to enhance carbon in the soil and increase water and nutrient retention.

Earthworms are great for the soil, their feces help to build soil.

Dung beetles compliment the earthworms.

200 cows will produce 25 tons of dung per week.

A cover crop is essential to improvement of soils.

Gabe Brown has up to 25 species of plants in his fields.

No till, high crop density, diversity, cover crops and livestock = good returns.

Talk to your neighbors, see what works.

Dr. Yamily Zavala...Crop and Soil Health Specialist.

Some problems...Soil compaction..Water runoff..Erosion..Poor growth..Less yields..More inputs.

Healthy soil has good tilth, and a great amount of organic matter, water storage is a given.

The continuous capacity of soil to function, Biological, Physical, Chemical, equals interdependent interaction.

Carbon and Nitrogen are useable by plants and are mobile in the soil.

Nitrogen is stored in soil organisms

Carbon is the source of energy.

Fungi is the mycorrhiza in the roots.

Carbon sequestration must increase organic matter.

More root systems more carbon sequestration.

The root of the problem is the root of the solution.

Food (plant diversity) is what biology needs, water, air and a place to live.

Living with Wildlife workshop...Grimshaw, AB.

Speaker...Courtney Hughes..

She spoke about how to identify bears and their range.

Attractants around your home, like garbage, BBQs, dead animals and spilled grain.

The use of electric fencing to protect whatever it is you don't want them to get in to.

They will pretty much destroy everything including the Bee Yards.

If your going into bear country carry bear spray and know how to use it!

Cougars can survive anywhere.

They use "stalk and ambush" to hunt.

You can hunt without a license on your own property.

Carry a bright flashlight, the Track lite would be a good one.

Luke Vander Vernen...Wildlife Biologist..

Our Elk always seem to be problem in AB.

Very strong population.

There are now three elk hunting seasons in AB.

Last year there were 1400 licenses available, not all were sold.

Cold and deep snow equals more elk problems.

Easy winters less problems.

For farmers to protect their bales, F&W will supply the fencing, you supply the posts and erect the fence.

Comments ...Why not just give the tags to the farmers?

Elk are nocturnal.

Comment...To F&W They are your animals so you come and fence them off my land!!

Living With Wildlife

By: Brian Harcourt

Speaker..Hugh Bjorge..ALUS

ALUS..a non profit organization dealing with migratory birds and marginal lands.

Funded mostly by the Weston Group (Family).

Farmer led and delivered, market driven, voluntary and science based.

50% Farmers and 50% oil and gas COs with with an ideal of increase land carrying capacity.

They are accountable and audited.

Weston wants to know where the \$ is going.

Money goes to proven model projects.

Five year agreements with the farmers.

11 MDs and Countys are now in ALUS.

Robert Starne...AB..Conservation Assc.

"The AB Wildside"...

He spoke about the sharp tailed grouse.

In spring the birds have their (LEKS) sites.

That's a hilltop area where they do their mating dances.

After the chicks are hatched they eat seeds and insects and they need good cover.

Wetlands make a great home for them.

But still the population is dropping off.

Mitch Warne...Woodlot .org.

Mitch gave an interesting talk on the local bird and bat population.

He explained how to build the correct bird house for those you may want to keep around.

There are 9 species of bats in AB.

He brought along two bat houses both flat one twice the size of the other.

He suggested not to feed sparrows and starlings.

Feb 24 2017..PCBFA..AGM...DMI..FV.

First Speaker, Dr. Akim Omkanye.

He spoke on cover crops with many graphs and charts

seeding rates and seeding methods, power performers like Cow peas and Black eyed peas.

Annual clovers, Ethiopian clovers and sugar beets.

Make a list of available cover crops and identify the growing period in the Peace.

Seed extremely competitive species.

Seeds per acre...1million to 1,250,000, 25 seeds per square foot.

Number of species in the mix and seeds per sq. foot.

Most Companies have packages of pre-mix.

Seed depth 1/4 inch to 1-1/2 into a firm seed bed.

Hairy vetch is a high Nitrogen fixer.

Sunflowers are very good for silage.

Brasicas may cause Nirate problems.

Hairy vetch is a very good mix with Triticale and oats.

In the PCBFA office in the GPRC college in FV they have some quantities of their 2016 Report.

It would be well worth your while to stop in their office and ask for one of those reports.

You won't regret the time spent.

Agricultural Service Board Conference

By: Julie Watchorn

On Tuesday January 24 2017 we traveled to Edmonton, Ab to attend the 2017 Agricultural Services Board Conference ! The theme this year was ' Under the Alberta Sky: People, Partnerships, Progress ' The first night it started with us registering and attending the welcome reception where the keynote speaker was Bill Wilson, CAO, The Rural Channel. We all know him best as the host of The Prairie Farm Report !

www.agcomproductions.com

www.theruralchannel.com

On Wednesday, we started with a welcome by the Conference Chairman, Bill Lee The Presidents of the Association of Municipal Districts & Counties and the Association of Alberta Agricultural Fieldman also spoke.

We then listened to Adam Kreek who was an Olympic gold medalist in Beijing in 2008 for rowing . He then, with 3 other men, attempted to cross the Atlantic Ocean from Africa to America in 2013 in a row boat ! His story is on NBC Dateline Documentary, Capsized .

A very humorous look at Agriculture and the way growing up on a farm really you have to listen to this guy! Damion Mason grew up on a Indiana dairy farm, last of nine kids so he knew he had to get a job because he wasn't going to inherit the farm. Absolutely hilarious look about farming and growing up as a farm kid. Agriculture- because starvation sucks!

DamionMason.com

Krista Zuzak from the Alberta plant lab

They had 325 samples sent in to them in 2016 to identify and diagnose diseases. The include samples of Wheat, Barley, Canola, Potatoes and Corn. Pulses- Peas, dry Bean, and Lentils. Trees- Elm, Pine, Apple, and Maple. Vegetables- Tomatoes and Garlic She talked about the clubroot in the province, the first confirmed diagnoses was in 2013, 2154 confirmed cases in 2015 and 260 more in 2016 .

Kevin Kossowan has filmed food and agricultural stories all over the world. Is currently working on Season 3 of a series called 'From the Wild'. In 2017 Kevin will be launching a website called ' Food Workshop ' Fromthewild.com storychaser.ca

On Thursday, started out with a very interesting segment called "People, Partnership, Progress Panel. They had 4 people, starting with Wayne Schneider of Great West Farms Ltd. who is a grain farmer in the County of Leduc. He sells his grain to Geoff Stewart who is President and Owner of Big Rig Distillery ,Edmonton's first craft distillery. Carlton Gruger buys the pulp from Big Rig Distillery and uses it to grow mushrooms. He then sells his mushrooms to Sylvia Cheverie who opened a French-Canadian restaurant in March 2016 called 'Chartier' in Beaumont, Ab

SourceLocalmovement

dinechartier-facebook

familyfungi.ca

Timothy Caulfield-

Popular Culture Vs. Science...A battle we must win !

How to live a healthy lifestyle

1. Don't smoke

- 2.Exercise
 - 3.Eat real food
 - 4.Weight management
 5. Prevent accidents
 - 6.Sleep
- 88%of people think GMOs are bad
37% dont

Twitter- @CaulfieldTim

John Knapp- Global Macro Trends and the Future of Agriculture in Alberta
retired Deputy Minister of Alberta Agriculture.

Believes these Government programs should stay:

1. 4-H
2. Rat control
3. Ag society programs
4. Call-In land radio programs
5. Agricultural Service Board programs

1-100 people grow up on a farm

we are having smaller families not as many people going out into mainstream society Shared with us his predictions that will happen agriculturally by 2050

Michael Kerr- Author and Inspirational Speaker Look for humour in your daily life! it effects your family, work place, and personal life

Live each day as it is your last...sooner or later your going to be right !

Work is hard enough as it is without making it harder..Make it happy!

Be a 100% jerk-free workplace

Create a clear sense of purpose in your workplace Communication is everything ; Can you smoke while you pray? 90% of people say NO !

Can you pray while you smoke ? 90% of people say YES !

You can't be serious.. Your not getting out alive!!

www.MikeKerr.com

Kevin VanTighem, Author of 13 books , promotes nature conservation and ecological education talked about Wolves and Bears How we will always live among carnivores

- Keep food stuff away
- bear spray
- be alert !

Ag For Life - Luree Williamson

Teaching people / kids about Agriculture in the classroom from elementary to high school
agricultureforlife.ca @ AgForLife - Twitter

Doug Macaulay -Rural Development Division - Agriculture and Forestry ASB Grant Program

55.3 million acres in Alberta (farm land)

12,000 weeds managed

[doug.macaulay@gov.ab.ca-email](mailto:doug.macaulay@gov.ab.ca)

Dr.Keith Lehman- Chief Provincial Veterinarian

Bovine TB Update

Challenging in many ways;

not wonderful tests;makes it difficult to detect lays dormant; sometimes years helps to have good traceability training hunters around Suffield Base to detect TB in wildlife (Elk& Deer) submit heads to Fish&Wildlife

1.8 million dollars paid out to quarantined farms TB can lay dormant in the cow for several weeks to months cold/moist ground prolong the dormancy warm/dry shorten it

ALUS Meeting

By: Julie Watchorn

ALUS CANADA - (Alternative Land Use Services) Is a national program supporting Farmers and Ranchers who produce cleaner air, cleaner water, more biodiversity and other ecosystem in their Communities which is funded in part by the Westin Family

Its Vision - A healthy landscape that sustains wildlife and natural spaces for Canadians

Its Mission - Enables Canadian farmers to make an active contribution to re-build nature by funding

ALUS works with just marginal land , landowners control the agenda with 5 year agreements to - maintain projects

- leave it there
- have to vegetate land
- have to keep wetlands weed- free .

ALUS helps create and restore wetlands , planting windbreaks, establish riparian buffers, manage drainage ditches, create pollinator habitat, and much more.

There is no criteria for the projects but must be approved by the ALUS committee.

To find out more ALUS.ca

Also on: Twitter, Instagram, Facebook, youTube

UFA Farm and Ranch Insights

By: MacKay Ross

Essential Nutrients with Elston Scolberg

The future is here, just unevenly distributed. The better way is out there, might have been found a week ago or 30-120 years ago. Learn, unlearn, relearn, constantly. Best thing to put on your crop, is your shadow. (Confucius had similar quote from 2500 years ago.)

Any fertility/agronomy questions, sunmountaininc@gmail.com

New leaves, not old, show sulphur deficiency. Nitrogen, phosphorus, magnesium, and potassium are the only 4 nutrients that will transfer from old to new leaves.

Agriculture producers faces a 70% increase in yield by 2050, globally farmers have the same concerns; pH, topography, drainage, compaction and erosion are the biggest.

Only 30-40% of a field typically needs remediation, concentrate on that part to bring it up to equal the rest of the field.

Admitted that the recipes we are currently using will not grow the 70% more food that the world will need.

Calcium is lacking (plant available) in most areas, to produce proper yields.

Caution when side banding it can significantly over toxicify the soil close to the seed/plant.

Broadcast, on seed, side band, mid row, foliar every spray pass. Nutrients over time and space, allows variability based on need or excess.

Don't let logistics, trump agronomics. Just because something is easy doesn't mean it's best or even needed. (Fungicide when it has been dry for months is easy but a waste, and potentially harmful)

Soil test is very limited (snap shot), tissue test shows what the plant needs today, Brix test for fine tuning at higher yields. Easily soil mobile nutrients Nitrogen, Sulphur, Boron.

Molybdenum, declines as pH declines, only mineral that does, \$3 an acre will cover any moly deficiency. Estimated 67,000 lbs of water to grow a bushel of canola, however the moisture in the seed is the only water exported from the field, most returns to the air. Critical tissue ratios; Nitrogen : Sulphur, then Nitrogen : Potassium, then Calcium : Boron. Proper Boron in soil will raise heat tolerance 2-3'C, boron is tied up if the SOM is dry, surface trash to shield from sun and retain moisture. Apply Phosphorus, Boron, after hail for repairing damaged plants and to provide energy.

Personal Note: Spend more, over space and time, for more yield (that's what everyone is chasing)

Animal Health Relative to Profitability; Dr. Simon DVM

Technology is changing animal agriculture. We are becoming managers, no longer labourers, in agriculture.

iFHMS data collection is common in feedlots. Herdtrax.com, cow calf data capture software.

Encouraged us to research the beef "code of practice for care and handling of beef cattle", released by the government. Most producers are already satisfying this code but need to be aware of it.

Pain control, for castration after 6 months of age starting Jan1,2018, currently after 9 months of age.

Antibiotics use will not decline but an increased regulatory environment has begun. This will require more veterinarians to prescribe drugs.

Greenhouse gas quantification Alberta gov policy.

Best ROI is still in growth promoting implants, implant at 1-2 months, when they go out to grass 25lbs extra at weaning. \$50 approximate ROI from \$1.15 implant and 12 seconds of time.

Regional and Global Direction of the Petroleum Industry; Don Smith VP of petroleum UFA

OPEC as a group (Saudi Arabia as the largest producer) in Nov 2014, ramped up production to increase their market share, which drove oil down lower than they wanted, met again and increased production to achieve the new "normal" \$50-\$75 a barrel .

Don warned us that new lubricant requirements will increase cost about 5%.

Secret of Mineral Nutrition; DJ Woodward from ADM

Take waste streams (everywhere all over the world) and turn them into animal feed, such as canola crushers and wheat as well.

People want to know about their food, and they trust no one but the producer.

Consumer is increasingly influencing the producers.

We are being pushed by regulations to return to vitamin and mineral to boost immune responses.

Beef is first world luxury, it's becoming a delicacy and focus on specialty markets is key.

Cattle can produce well on lower feed, when using byproducts to address minerals.

All the trends (natural, organic, etc.) is only 5% of the market, and only 1% of the world can afford it.

"Animal happiness", formally known as animal welfare.

Pro and pre-biotics are good microbes and their food.

Technology is being developed to intentionally send encapsulated food to the intestine, "perfect " bypass protein.

Omega 3 from algae is more economical than from fish.

Certain yeasts act as an immune stimulate and pathogen binder which is then excreted.

Social media power; ADM lost 14 million through Internet fraud, but what scares them is a pet dying from their feed and a viral video makes ADM stock crash to half price over night.

I caught the last couple minutes of Larry Weber's question period on market outlook.

Recommended Marketing/contracting 20% at a time and set market triggers for your desired \$/bushel.

Larry@webercommodities.com

AGI; Rene Deschamps

Grain conditioning and correct aeration system Venting on bins at all times. Equal venting, inspection hatch is ok but "mushroom" vent on the opposite side and filler lid, 1 square foot of vent per 1000 cfm aeration fan.

Height of bin and commodity has a great impact on hp required, 1hp/1000 bushels for cereals 2hp/1000 bushel in oil seeds.

Find equilibrium moisture content chart!

To dry with aeration you need; 75-100 cfm/bushel, 10'C ambient temperature, 64% relative humidity all these are required before grains will allow moving air to remove moisture.

Proper vent will eliminate wall crusting.

Start warming grain in the spring at 5-8'C variance, warm slowly over longer time.

Run all the time, running at night only for southern Alberta where they are cooling the grain not drying the grain.

Beef Cattle Day hosted by NPARA and PCBFA

By: MacKay Ross

Dr Surya Acharya researcher responsible for the breeding of Mountain View Sainfoin.

25% sainfoin (or more) in Alfalfa in feed and grazing eliminates bloating (nearly), and sainfoin binds with alfalfa protein and results in bypass protein.

Old varieties of sainfoin also stopped bloating; however it didn't grow (establishment was challenging), persist (lasted 1-2 years at minimum 25%), consequently they didn't provide much biomass even the first year.

Many forages are bred to only yield well in mono crop, testing in a poly crop is always higher.

Simple breeding, plant mid row with alfalfa, cut 3x a year for 3 years then use best sainfoin plants that performed to desired benchmarks. Continue till one identifiable cultivar stands out, then commercialize.

All alfalfa/sainfoin mixed grazing yielded better gains than mono crop of either. Grazing these mixes yielded higher ADG than cut and feedlot fed.

Cattle will tend to mix graze and not show preference to alfalfa other than for the first few minutes (alfalfa) then eat sainfoin as well.

Grant Lastiwka

What is the ideal pasture, what do you seed to start a good pasture, not start with old hay.

Legume/grass mixes out yield (54-96%) more than tame grass and even more than native grass. (I have been repeatedly told native was better than tame) This results in 194-383% higher gross margins per acre.

If you don't seed/establish a good hay/pasture stand you won't end up with a good stand; however more seed is not better. (The graziers claim fence posts and management are the key to good pasture)

Seed depth is crucial, have a firm seed bed, roll after planting (No till).

www.foragebeef.ca

"Manage for profit above ground and wealth below."

Producer Panel

Remember forage is long term, establishment costs will seem very high. Days grazing per acre 75-90 so 1 cow per acre for 75-90 days of grazing. 70 cows on 90 acres from 15-May to 15-September grazed over as many as 3 times but first grazed won't be grazed first next year.

Akim spoke on PCBFA experience so far with sainfoin. Accidently planted in row alfalfa and sainfoin, still grew, and persisted well.

Gallagher Rep spoke on electric fencing tips.

Buy joules not volts, joules are like HP and volts like RPM, buy a big enough tractor.

3000V minimum to stop cattle, check fence all the way to the end.

Electro Magnetic field around ground rods is 10' so if they are not 10' apart, you have one rod not 2.

Use proper parts, galvanized ground rods, galvanized clamps, etc.

Check ground 2x a year in the spring and fall, about 300 feet from the fencer, lean rebar against the hot fence till we have a 1000 volt reading past the rebar, then check ground, we want less than 200V reading from ground rod to dirt. If the reading is higher, install more ground rod(s).

Don't electrify barb wire because of rust and conduction to posts. (maybe applies to old wire and posts without insulators, we have a few, they work fine.)

Brian Perillat with CanFax

Beef is 2-2.5x more money per cwt than other meats, cheap grain benefits pork and poultry far more than beef.

Look to sell at 11 weeks (20 of March) into the year for best price, then at 32 weeks prices are higher.

Weak Canadian dollar has less impact than we think, it statistically results in cattle coming north not south, due to cheap feed and cost to packers.

Peace Agronomy Update

By: MacKay Ross

Jennifer Mitchell-Fetch talked on oat variety breeding. First pick the parents to breed for a specific purpose.

Intentionally disease the seed and cultivars, both in the nursery and field to eliminate weak strains.

Seeds go to New Zealand for 2 growing seasons and are again "diseased " and lodge tested.

Initial cross breeding of "parents" result in about 6000 lines, down to about 46 by pre-registration and down to a few to evaluation. Only a few make it to potential market.

Recommends farmers find out which varieties buyers and end user want. Then grow the best for our area.

Bill Chapman spoke on oat marketing opportunities.

He recommended we assess our up growing days to see if they are adequate to grow beta glucan which can then be used as a potential marketing tool and benefit.

As an area we need to take a look at commercially growing potatoes.

Ochre toxin in oats is a risk. Ensure stored grain is dry as soon as economically possible. This is less important with livestock feed but still needs to be addressed.

Ensure your buyer is Canadian grain commission bonded.

Buyers want (but don't tend to tell farmers) 20 L sample size, lidded, sampled from throughout the load/bin, and stirred for uniformity.

Grain commission does sampling for free from the combine.

Remember that 6-8% higher yields than normal are required before it's statistically important, don't buy the hype.

Bio Ag, Jon Treloar

Bio Ag is Novazymes (German company) that has joined with Monsanto (for its distribution network).

Sell inoculants, interesting that they recommend soybeans require 2x or more.

Trent Whiting spoke on Wheat reclassification.

The specific variety of wheat is going to become more important when you sell.

Check www.grainscanada.gc.ca

Neil Blue grain gave us a pulse and oilseed market update.

Record high S&B 500 but volatile due to tweets from President Trump.

Currently wheat stocks are high, recommended limited seeding for 2-3 years.

Forage seed compares to other per acre crops, consider these to offset the decreased wheat acres.

Soil Health Spirit River

Regenerating Soil Health and Farm Livelihoods, with Dr. Richard Teague

By: MacKay Ross

Regenerate soils, not sustain degraded soils. From what soil scientist can tell, 90% of soil function is microbial. Feed the microbes.

Water in the soil, not rainfall, is the limiting factor. Each 1% increase in soil organic matter (SOM) improves water carrying capacity by 16,500 gallons per acre.

Ensure all Flows; Energy, water, minerals, and a community dynamic diverse ecosystem.

Full farm research not small areas; plots serve a limited purpose, change management or practices on the whole farm and record results.

The amount of time animals are on land is the critical factor (days, weeks, months) not the number of animals in the herd (million lbs/acre for 2 hours vs 1000 lbs/acre for a summer).

AMP (adaptive multiple paddock) grazing is the practice of as big a herd as possible, moved to a new paddock as often as possible. It is important to be flexible; in paddock size (reasonably easy) as well as in total stock numbers (pretty hard, we get attached to our livestock). This grazing practice is capable of sequestering 3ton/ha of carbon/year which also promotes soil health and forage growth.

The goal is always to decrease bare ground(trampling helps initially), improve soil structure (limiting time on paddock decreases compaction), soil fertility (diverse plants=diverse soil microbiology), water holding(SOM see above note), livestock production(more forage=more livestock).

AMP has produced a 10% increase in soil carbon in 10 years, which increased rain retention to 8-16"/hour from 1% soil carbon and 1"/hour rain retention.

Carbon sequestration varies from 150%_430% increase at various depths (down to 2m)

80-90% of soil microbiology is beneficial, having proper fungi-bacteria ratio is important, Earthworms are a significant sign of soil health. The more per square foot each year the better!

The dung beetle's value is estimated at 2 billion dollars a year.

What about exclusion (animals fenced out, return to "nature")? AMP provides the same water cycle improvements as exclusion, but is significantly better at sequestering carbon, renewing the nitrogen cycle, and of course provides food through livestock production.

Cover crops grown on crop land, and managed with AMP, provides even better results, available minerals increase 250-87%. Grazing animals with AMP on 17% of cropped acres will maintain fertility, grazing on 20-25% of cropped land will achieve soil fertility in depleted conditions.

Interestingly, from the data, even light continuous grazing is significantly better than high continuous grazing.

Soil Health, with Yamily Zavala

Healthy soil has, tilth, deep roots, water storage, diversity, balanced minerals, no toxic chemicals.

Soil has physical, chemical, biological processes, all of which must be functioning, Biology makes the other two possible.

An intact Water cycle percolates, it does not run off (extreme rain events notwithstanding).

Tilth results in; aeration, water storage, makes soil resistant to erosion.

Compaction; stability (especially in sand) less pores, less air/water, less microbial (side effect of reduced fertilizer efficiency).

Soil aggregates smaller than 2mm are wind erodible, 2-6 mm water erodible 6-19 increase in retention 19+ virtually no erosion.

OM (organic matter) incorporation is best done naturally by earthworms, tillage will incorporate OM but will kill earthworms.

Mycorrhizal fungi transport plant nutrients, inoculate whenever needed.

C:N (Carbon:Nitrogen) ratio is crucial to create mineralization in the soil, 38:1 or higher the nitrogen is tied up in the microbes, not going to the plant, (this would be challenging to achieve).

Diversity, diversity, diversity. (Soil scientists stress this every time; diverse livestock, diverse rotations, diverse plants, diverse micro-organisms, diverse bacteria, diverse fungi, diverse available minerals.)

Polysaccharide are macro aggregators, humic compounds are micro aggregators. Micro means more stable, macro are better at holding Carbon.

Roots build 69-80% of SOM, the rest is from above ground litter. Build plants by using biology, other methods kill biology.

What do you need cover crop to fix? ``It depends.`` What is your desired outcome? Mentioned the benefits of incorporating grazing into cover crop.

Carbon Sales

Only new sequestration projects get payed. There are only three Agricultural carbon aggregators in Alberta. Pay about \$1.47/acre for carbon no-till.

Aggregators maybe contracting up carbon credits to have some to sell in carbon levy potential prices. Wind power is eligible for carbon credits. Since 2010 ALUS has put \$674,000 into Alberta farmers pockets.

Conservation offsets are being looked at in Alberta, company pays to take out trees, or pays landowner to keep or improve trees.

Alberta Beef Conference – February 15 – 17, 2017-

By: Garry Candy

Wednesday, February 15 consisted of :

- ❖ **Pre-conference workshops**
 - **Uncovering your personal brand**
 - **Introduction into holistic management**
 - **Animal welfare in Canadian feedlots**
- ❖ **Trade show booths – full list of participants appended at end of report**

Thursday, February 16:

- ❖ **Danny Hooper - Master of Ceremonies – an excellent speaker introducing speakers and topics**

Biography - Danny Hooper is enjoying a remarkable ride. Born in Edmonton, Canada and raised on a cattle ranch near the tiny hamlet of Tomahawk, Alberta, Danny knew at an early age that his passion was in the entertainment world. In the decades since, he has parlayed his unique personality and off-beat sense of humour into an award-winning career and thousands of on-stage performances as a recording artist, motivational speaker, comedic emcee, and celebrity benefit auctioneer.

Numerous speakers with sessions running simultaneously:

- ❖ **Morning and Afternoon: Terry O'Reilly – He spoke from a marketing view and how a change of perception can change the thoughts of the buyers on a large scale and influence public consumers – giving example of companies that had excellent success by changing their branding of products i.e. A & W sourcing and advertising use of steroid free beef in their burgers.**

Changing Minds: How to Turn Negative Perceptions Into Positive Ones

One of the most difficult tasks marketing can undertake is to change a perception. But it can be done. If the beef industry is facing perception obstacles, it must get ahead of the problem. Terry will talk about the process behind changing public behaviour and turning a negative perception into a positive one and will demonstrate the ways other advertisers have tackled this difficult problem with extraordinary results.

Tell Me a Story: The Power of Storytelling in Marketing

If you don't have a story, you don't have a business. All the top industries in the world are underpinned by compelling brand stories. Stories move people, stories attract business and stories can be used to turn negative perceptions into positive ones. Join Terry O'Reilly as he talks about the best brand stories in the world, how they are created, how the beef industry can harvest its own stories and how to use the power of honest storytelling to guide your brand into a positive place in your customer's minds.

- ❖ **2017 – 2018 – Dr. Art Douglas –**

- **Biography** - Mr. Douglas received his B.A. in Biology and Geology from the University of California at Riverside. He received his M.S. and Ph.D. for the University of Arizona with a specialty in long-term climate studies. He taught at University of Nebraska Lincoln, Scripps Institution of Oceanography and Creighton University. At Creighton he served as Chair of the Atmospheric Sciences department from 1983-2009. Mr. Douglas has been the long-range weather forecaster for Cattle Fax since 1977 and for the Gaviion Trade Group since the late 1990s. He continues to consult for the Mexican Meteorological Society and we are pleased to welcome him back to deliver 2017's Weather Forecast.
- ❖ **Dina Ignjatovic**
 - **Global Economic Forecast** Macro review of the North American economy including an interest rate forecast, CAD / USD currency forecast and a briefing on world commodities.
 - **Biography** Based in Toronto, joined the Economics department at TD Bank Financial Group in September 2007. Her chief responsibilities include analyzing and forecasting the auto sector, commodities and other industries. Dina also contributes to a wide variety of TD publications, and is frequently quoted by the media on various economic issues. Dina holds an M.A. degree in Business Economics from Wilfrid Laurier University and a B.Comm. degree from the University of Guelph, where she majored in Management Economics in Industry and Finance.
- ❖ **Dave Hemstead**
 - **Taste of Alberta Comedian** - Called a "Canadian Master" by Just For Laughs, **Dave Hemstad** has skyrocketed to the top of the national comedy scene, appearing regularly across the country and on a hit show on CBC. Brashly confident on stage with clean, refreshing, motivational humour, Hemstad muses on daily life, modern world frustrations and social tensions we all experience, but keep to ourselves.
- ❖ **Duane Lenz**
 - **Market Analyst at Cattle-Fax since 1989**, working with Texas, Colorado, Nebraska and Western U.S. feedlots and cow/calf producers. His current responsibilities are with Texas, California and Arizona feedyards, as well as serving as General Manager for Cattle-Fax. Duane is also heavily involved with meat analysis.
- ❖ **Richard Brown**
 - **Global Beef Market Outlook** - Review of the global beef demand outlook in the context of Asian demand growth and the expanding competition from South American and Indian supply and the dynamics which are driving this.
- ❖ **Brian Perillat**
 - **Key Market Factors for the Canadian Beef Industry** Session focused on the beef industry's supply, demand, and future price trends domestically and internationally as well as macro trends affecting the industry and how they will impact beef supply and cattle prices in the year ahead.
- ❖ **Doug Lacombe** – Referred to suppliers again changing brands based on consumer tastes – made mention of the number of products such as Cherrios that now offer a multitude of choice to consumers as well as to suppliers again changing brands based on consumer tastes – made mention of the number of products such as Cherrios that now offer a multitude of choice to consumers as well as yogurt and commented that Greece apparently needed to go broke in order that their yogurt made it to our grocery shelves.

- **Consumer Trends Survey** - Consumer tastes are changing, as is health consciousness. This leads to a lot of misinformation, dietary fads, and demand for new and different products and processes. Beef now competes with other protein choices like never before. We all hear a lot of noise about beef, from health scares to environmental concerns, hormones to antibiotics. There's a loud minority that has a lot of opinions. But what about the silent majority? And what does the data say? Is this minority really having an impact? Are their views becoming mainstream? Doug presented the latest findings from the research data and put these trends in context. One thing is for sure, marketing beef in the future will not be the same as in the past.

- ❖ **The Real Beef – Panel – James Bradbury spoke about the Canadian consumer advantage – 4 additional speakers onstage spoke as a panel**
 - **Mike Lovsin – Freson Brothers**
 - **Mike Barette – Natural and organic meat farms**
 - **David Carriere – President, Centennial Food Service**
 - **Tom Barlow – President and CEO of the Canadian Federation of Independent Grocers**

They answered numerous questions from the audience about where the beef industry is going – mostly positive as far as demand goes – a great deal of discussion about organic meat as that a great many consumers are leaning that way

- ❖ **Jennifer Winter – Emissions pricing in North America**

- ❖ **Richard Brown - Global Beef Market Outlook**
 - **Spoke about markets – 30 % of all beef exports and 25% of pork exports go to China**

Sponsors and Trade Show Participants

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 John Deere
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Canadian Angus Association
Canadian Charolais Association
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RBC Dominion Securities
Nester Livestock Equipment
Union Forage
AgriClear
University of Calgary, Veterinary Medicine
Hi-Pro Feeds
Kane Veterinary Supplies

Garry Candy

report was received
after Feb. ASD agenda was
printed

Winter Watering Tour – January 13, 2017

By: Member Candy

Coffee at 9 am, boarded bus to first site – Van Herk from Eureka River.

Watering buildings are constructed and large tanks of water are placed with 2/3 of the tank inside the well insulated building that the owner built himself.

Lunch was held at the Hines Creek school with 2 speakers:

- Dan Benson with the Alberta government said that land owners do not own the water on their land, nor the land underneath the water. Permission must be obtained from the government before doing anything with the natural occurring water and waterways.
- Steve Kenyon from Busby, Alberta said his first choice for winter water is snow but with some precautions. Continuing flow systems are his second choice – illustrated how he used old rockpickers with solar panels to run pumps and heaters. The pumps were submersible and the return to the dugout insulated. He and his wife own no land or animals. They manage about 1200 – 1500 head on rented 3300 acres. There is virtually no risk to them – He and Amber have a company called Greener Pastures and contract to do 3 day workshops on cattle management.

A tour to Whitelaw to view nose pumps was scheduled for the afternoon.