# The Dirt on Soil Health Nov. 14/19 Rycroft, AB

## Kimberly Cornish

Tracking change
Measuring and mapping change soil
Organic carbon
Why carbon?
Has it not been done before?
Why work on soil carbon measurement?

A grazing feedlot under holistic management since 1980, some parts of it has increased 6000% productivity

GPS farm area and estimate carbon Use algorithm Sample goes to lab Tom Hangal-Netherlands

### Dr. Kris Nicoles

We are short of carbon, which makes our soil into dirt Carbon is the ultimate filter!

Regenerative agriculture builds resilience with soil biology

Photosynthesis is the most efficient form of solar energy conversion to chemical energy in bonds between carbon atoms and other atoms Even in winter you still have photosynthesis because microbial and living roots are still growing You need carbon Your body is made of carbon Your food is made of carbon

Earth is ¼ land
Take off deserts, forests, etc.
You have 1/16 left
take off urban encroachment
1/32 is all the land to grow food for 7 billion people
In that you lose 7 billion tonnes of topsoil yearly

Nature needs us to stress the system...
Seeding depth effects over all yield but not always
What is ideal depth? In nature what is it??
Don't take your straw off your fields
You aren't growing your soil nor protecting it
Biological tools take time
What can you put into place first?
Spread seed
Put cows out to push seeds into the soil
OR...
Seed with your combine!

Seed with your combine!
Build a spreader on your header and spread straw out behind you to cover seed and help with germinating Put in seeds that stresses the competitor Roll one way; 3 days later roll the other way

Aggregate Test:

PVC pipe cut in 3 inch pieces

1mm screen,
2mm screen
Screen cut big enough to cover bottom of PVC
Glass with water
Glue screen on end of pipe let dry well

Take pipe with 2mm screen stack on top of 1mm being on the bottom
Add small amount of dirt
Shake to sift dirt using dirt on bottom pipe add a bit to a glass and sprinkle dirt on top
The better the dirt the bigger the clumps cloudy water isn't good

The best way to put forested land into production is seed down with perennials and graze hard in the problem areas.

#### Winter Watering Tour

By Brian Harcourt

Speaker..Katie McLachlan..Subject CAP Update. Active date..April 2018 to March 31, 2023. 406,000,000, available.

#### www.cap.alberta.ca

Climate Change Program -- 2 Purposes.

- 1.. Water Quality and Climate Change.
- 2.. Air Quality and Biodiversity.

Max \$ 100,000.oo available.

30 to 50 percent eligible.

You pay first then apply.

Need an upto date EFP---Must Prove!

They expire every 10 years.

5 different categories..101 to 105.

Must use new materials and new construction.

Must obtain Quotes.

Farm Solar money has been cancelled.

Check the Web site and or call PCBFA 780835 6799.