

Thursday, August 18, 2022

Attendees: Jake Jacobson, Kristi Anderson, Todd Pollema, Noah Boelter, Keith Olander, Ryan Perish, Cory Detloff, Hannah Swartzentruber

Todd

- Byron #1
- almost done combining oats
- Yield 100 bu./A
- Sheet for fertilizer
- 5 gal of N on pumps came out exact
- #2 soybeans
- #5 corn as well as #3 and #6
  - o Fungicide app study on 3 and 6
- #7 and 9 corn
- Irrigators #7 and 8 were destroyed in tornado on Memorial Day
- #7 – the corn was short and behind, it was a rough summer for this
- It got a blast of fertigation and water
- #9 did really good
- #4 the hills were planted to soybeans
- #4 on the flat it was 32A of DRK – N rate study with 3 different application rates
- The rates were 40, 60, and 80 units
- Typical is 90 units
- Partnership with Dan Kaiser and Northarvest bean
- #8 and 10 had potatoes

Keith Olander – economically positive?

Ryan Perish – yes

Todd Pollema - \$4.75 oats contracted

- Open contract for 6,000 bushels at \$3.75 and \$4.00

Keith Olander – could be positive this year economically

Todd Pollema – 3 applications of 5 gal liquid

- Late spring caused things to be a challenge
- Used NH<sub>4</sub>SO<sub>4</sub> – couldn't spread low enough with urea

Keith Olander – sand has potential under the right management

- Hit up early on for farming sand

Todd Pollema – the water was off until the oats headed

- After heading we watered hard
- Water was good – oats are standing
- Had oats well over waist high

- Still standing well
- Potholes in Byron #8 were seeded with oats
- Never fertilized so there's not much there
- Just leave it for the cattle
- Byron #7 – planted 8 A of 60" corn
- Mix was annual ryegrass and berseem clover
- Needed water
- Looks okay though even without the fact that it didn't get much water due to the irrigator going down
- Sprayed with RR

Jake Jacobson – potatoes planted are standard Burbanks

- Test plot on #8 – size was nice
- Set not as high due to lack of water
- 1<sup>st</sup> harvested – cover crop after that – mid September
- #1 had potash and rye disked
- 8 and 10 will have an oats and rye cover crop this fall
- Potatoes on 2, rye or oats or barley up there for a cover crop too

Todd- not 4 sprayed Raptor on there

Jake – open to other things on 8 and 10

Roy Bell – rye overwinters

- Suck up stuff in the spring
- Beans and oats do not make it through a frost – they're done.
- Logistics are tough
- Live next door – good deal, but we don't have two weeks and then we're done if it is late in the season – cost more to get the cows there at that point
- Water deal – pump out of test well – froze over there
- Labor shortage – hard to get it all done

Keith – moving – hire trucking?

Roy – cattle scheduled to be sold and shipped on this date, logistics have an issue

- Rye in the spring has a good chance

Todd – piece in middle of corn field

- Corn is so far behind as it went dormant

Roy – eat other pieces – won't eat RR corn

- Have 5 days to eat other things

Todd – thoughts on conventional corn?

Roy – the deer tell you it is better

Todd – saw it on his own personal farm

- The deer will walk right through the RR corn to the conventional corn
- Took every ear off
- Never touched neighbors corn
- Conventional soybeans over on a dryland piece can't grow fast enough as the deer keep mowing it off
- 2018 and 2019 there was more corn available out in the fields
- 2020 – turned choppers off – corn was very brittle
- It depends on the year and the corn

Keith – how do we help you to get cattle there more consistently?

Roy – something needs to come off in August

- Need feed to justify the moving
- Sent cows away
- Get corn out of the picture
- 3 weeks to break even for feed
- Pastures with no cows on them right now
- Not enough cows left in the country
- Cattle on the east side of Byron – 70 pair
- Short duration – have to truck them all
- Need more than enough for feed for 70 head
- Cows – multiple places
- Trailed them to Byron – 16 miles
- Some cattle that he has are closer

Keith – training more involved

- More consistent in soil health
- SWCD, MDA, NRCS

Jake – need more exploration

- Hay and grasses established for all summer

Roy – get figures for you

Jake – be there all year

- 1 pastured off for entire year
- #1 challenge
- Can we tie into all the fields? Look at economics of this

Roy – labor is going to be an issue

- Go out and sweat? Vs sitting in a nice office? Hard to find people
- Make things logistically better – game changer if we could get some feed and a helper

Kristi Anderson – monitor the wells?

- Sneak a pump into them for watering the cows

Roy – set up for water – good about drought

- Pick and rotate
- Pump can drop in

Kristi – only 1 well NE – wouldn't work well as it dries up

- Monitoring wells

Roy – difference in cattle needs vs. irrigators

Jake – use wells for the irrigators

- Cap off a well and water with it

Roy – in Oregon there are pivots set up for outlets and plumbing for cows

- Had a pivot with established grass other than cereal grain
- Always water and grass – ideal for yearlings
- Can control rate of gain better
- Comes back to fencing
- Yearlings – like teenagers and try the fence
- Need training – not sale barn cattle
- Need a perimeter

Jake – alfalfa or hay?

Keith – leery on alfalfa and hay

Jake – grass – work for grazing – more than a couple years

Roy – breaking posts – on the West side driveway by the 20' gate

Kristi – four wheelers are really bad up there

Todd – run in on #5 planting

- Had no right to be there and they destroy the field roads

Cory Detloff – warden lives right by there

Roy – single scale for weighing

- Do samples
- Scale is fixed

Keith – additional gating to make process simpler

- Collect data
- No one doing the research
- Rate of gain- body condition score – what do you need?
- Do it over a few years

Todd – interest in corn silage?

Roy – nope – too expensive

Todd – 3 wks later than S side

- Not as much tonnage
- Chop #7 – 135 A – 10/12tons/A – starch okay 1,500 ton

Roy - leave cows there and do it right there

Todd – got it off quicker

- Earliest corn planted
- Trying to graze – plant it soon
- Dent on S – blisters on corn on the N

Roy – graze corn – extension agent – get so many days

- Ate 1/3 knock down 2/3
- Builds soil quickly
- Jumped organic matter
- Cattle grazed it when it was in the milk stage

Ryan – soil samples next week on #1 – timing not perfect this year

Jake – cover crop early – as soon as the oats were off

Ryan – lysimeters data

- Typical results
- Similar to soybeans
- Nothing jumps off the chart
- Soybeans and small grain – can make an impact
- Water quality impact
- See in 30-70 ppm as a general range
- Come high in row crops
- Ideally want to see corn or potatoes on Byron #1
- Look to mitigate losses – what can be done?

Jake – get wish next year as we're thinking about potatoes for next year

Ryan – transferability, make some small tweaks to their plan

Kristi – young field

- More Organic matter now
- Grasses mineralizes
- Wood does not rot well

Jake – varieties low N use

- No checking with lysimeters
- Hope to use low N potato variety
- Small trial of Burbank
- Good trial – indicator
- What are we all doing
- Need under a 100 units of N for some crops of potatoes

Ryan – see a story build

- Well data – concentration of ppm
- Green dash lines – MDA monitoring network
- Nitrate concentration coming down below 15 ppm – hovering there
- Over 85 percent are below median points – including corn
- Specialized rotation – positive impacts
- NW corner – water at a foot and a half
- Both shallow
- Snow melt does play an effect

Kristi – dilution to concentration

- Shallower 1 or deeper

Ryan – snow melt and dilution as water makes its way down

Keith – kernza? Play on #'s

Todd – Intermediate wheat grass – drought was hard on it

- Leave it there – thin
- Don't know what it looks like at this point
- Flow from SE- NW
- Plant dormant for so long

Kristi – Byron 100" horizontal flow

- Hard to determine horizontal vs. vertical influences

Ryan – last graph is not public

- 1<sup>st</sup> 2 graphs are benchmarks
- 85 percent of samples below median concentration

Jake – coarse sand, do you anticipate things in heavier soils?

Ryan – liven in a sandbox – venture a guess

- Ability for soil to hold on lower concentration

Kristi – lower under heavier soils

- Not in ground water
- Water sits there

- Almost no leaching
- Issues with runoff

Jake – look at heavier soils

Keith – different rates of N

Jake – haven't had a big rain even

Todd and Cory – we had a big rain event that went through on June 25<sup>th</sup> with about 5 inches

Keith – folks grab the graph and assume it's bad because is above zero

Ryan – Don Czercheck – lysimeters under turf

- Don't have a lot of loss due to dense root system
- Pretty minimal
- More horizontal vs. vertical

Todd – houses built around golf course that want that dark green grass

Roy – fertilize lawn to mow it more

Kristi – monitoring on S side

- Samples collected in July – no results back yet
- -102S and 102D – monitor to make sure it's not pulling in N
- MDA put a grout all the way around casing
- Well code not up to code
- 102S and 102D leave influences over each other
- Seeing nitrates in the ground water
- How is it getting down there
- Look at S side
- Data not public
- Water level back up from drought
- Levels back up and at a good level

Roy – called Mike Sams

- Needs to be cost effective for us to continue with it
- Have some way for consistent
- This period of time is a slump
- Will cattle pay for the pivot
- Cattle there and short hop to other
- Fencing and maintenance time
- Cost effective
- Learning experiences
- Simple plot for NRCS – not too far behind
- Effecting bottom line
- There is the problem

- Front end of things

Keith – financially balancing stuff

- PLFA or Haney qualitative data
- Do a season

Roy – even part of a season

- Put cows out there that it's cost effective

Keith – Sept 1 or Sept 5

Roy – barley as a crop is a good crop

- Add something to the volunteers

Jake – barley quickest – takes a lot of N

Roy – winter wheat planted around here

- Tanker truck is not working – rusted out – looking for 2500 gal of water

Jake – not typical for winter wheat

Roy – tanker was a reservoir – pump on every 4 days or so

- Locate that – be mobile for other fields
- Insulated cheaper to pump and dump them to heat
- Trickle of water vs. heat

Keith – RCPP MDA lead and SWCD

- 16 approved \$56,000/project
- 56 applications received
- Have to have a system
- Renozzle
- Step in and do cost share
- 20 counties
- New system is up
- Well disaster project

Cory – hole #4 looked good

- Not sure if it can hold 200 gph
- Do original test hole
- Tie a couple together
- Test pump and see where it moves

Keith – received \$40,000 for support

- Water access around here is difficult
- Manifold 3 together



- Have model up and running
- ½ pivot swing
- Pivot irrigation- wants to be at different places, talk of building another

Cory – field day flyer

Keith – IAM field day legislature – St. Paul

Cory – cameras on pivot and soil sensors

- Variable rate ability
- Cameras and soil moisture

Jake – Perry’s cameras installed

- There’s 11 of them
- Pump out a lot of data
- Can see bugs
- See data and what does it do
- People don’t know
- Data base

Kristi – who has data houses

- US or a few others
- Can’t get all data here

Roy – what data is out there

- Quote on how much water you can use

Todd - \$43, \$35-\$37 – electricity \$40/A for entire season

- Land rent \$225

Roy – maintenance - \$1-\$2/A

- Deficiency of sand

Cory – cost of establishment

- Starter
- Side dress – mob graze

Jake – talk to Nick and Keith McGovern about it

- Grass or hay
- 3-5 year project

Roy – get cost down

- Slow establishment on root system
- Likes big blue stem

Keith – run in quadrants

Roy – warm season grasses hold nutritional values

- Graze those
- Root system, 4" deep or more
- Timothy lay all down
- Big blue stem will stand through the snow

Todd – private land mainly around #1

Kristi – trees and scrub

- DNR land – waste
- Clean water land S side of road, sign out

Roy – need plan B and C – irrigation controls water, can't control temp.

Cory – agronomy program Precision Food Production – fall 2023

- Meat cutting – fall – May before we see facilities
- Hybrids this fall
- 18 accepted to the program

Keith – have \$ and investments

- Mobile slaughter unit
- 53' unit that comes from Texas
- Pick a location
- Big build out
- Farmers union purchase on Prairie Avenue a plot of land
- Comes from farmer and back to farmer
- USDA custom processor
- Dan's Pride and Long Prairie Packing Inspector coming
- Long term – cattle here

Todd – retired from cows

Keith – field day next week

Ryan – fact sheet in the shed will be available