Rademacher Farms Newsletter

Update 10 - Soybean Update

Feb 8, 2019

Hey everyone,

It's finally here, the long awaited soybean update. The last bin of beans was unloaded today and it's nice to be able to write this in confidence knowing how everything ended up. In this update I'll briefly go over how our two bean programs turned out, a cover crop trial, and the plan for the 2019 season newsletters.

Intro

Just as a refresher, this year we tried 2 new soybean programs: 1) Non-GMO soybeans and 2) Non-GMO Food Grade Soybeans. Each comes with different incentives. For example, the Food Grade yield less, but have much higher premiums, so there are certainly trade-offs and things to consider.

A couple notes: 1) Our genetically modified (GM) soybean average over the last 4 years is about 67 bushels/acre, I'll refer to that number a few times as our baseline. 2) Even if we don't end up going a certain direction, it's great to try new things and make connections with different markets. 3) Although these are still soybeans, bushels/acre are not comparable to regular soybeans due to premiums. Any comparisons need to be apples to apples. 4) Profit is our goal, not yield and I think we did very well by that standard, based on our historical yield.

Non-GMO Food Grade Soybeans

These beans were grown on about half our soybean acres. We are given a list of varieties to choose from. They are bred special for soy food production. Because they are bred for certain specific characteristics, they do not yield as high as other soybeans generally. This yield drag is reflected in their higher premiums and there is also a benefit in having to harvest, transport, and store less bushels. An example of the selective breeding is shown on the right. These are bred to not have the black spot typical on soybeans. The black mark would discolor foods the bean is made into.

Overall everything went well, we had no quality issues and the buyer was disappointed we would not be growing them again next season. The approximate yield was 58 bushels per acre. However, with associated premiums, we would have needed 75 bu of GM soybeans to have the same level of profit. Using our historical baseline of 67 bu., we had a ~12% increase in profit. Tell a group of local farmers we got 58 bu beans and you'll instantly suck the air out of the room.

Better yet, the premium just increased by 25% on that particular variety. That would bring the profit level closer to the equivalent of 79 bu/acre with 58 bu/acre production.

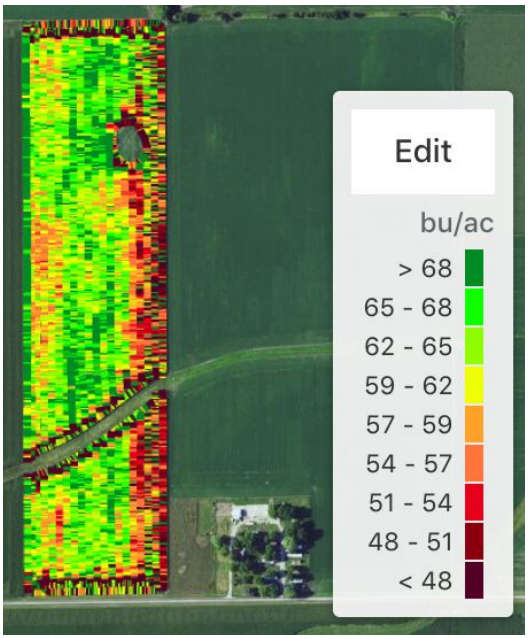
Regular Non-GMO Soybeans

Regular Non-GMO's are sold to local elevators and we can choose any commercial variety. They yield higher, have lower quality requirements, but come with lower premiums. As I've outlined in previous updates, these were from the problem field. If it could have gone wrong, it did. And while beans are resilient, I would guess we lost yield from any one of the countless issues this field faced. And on top of that, 12.5 acres of 160 acre field flooded and died. That stresses the importance of increasing our water infiltration rate and holding capacity, like we mentioned in the corn yield newsletter. Despite the ridiculous issues that this field faced, the 148 harvest acres averaged 65 bushels. With premiums, that puts profit level around the equivalent of 76 GM bean bu/acre. Again a ~13% increase over our average historical baseline.

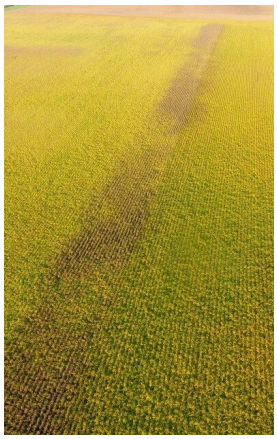
We decided to go with this program for next year due to lack of available storage and our belief that there was more yield potential than what we saw this year.

Cover Crop Trials

We get lots of cover crop questions and skepticism, especially on yield and payback. I love it. Criticism is healthy and drives reevaluation and change. First off, I believe that erosion control and soil building has a huge payoff...but unfortunately most don't care about that yet. But what about yield? We did an accidental trial this year on soybeans. By accidental, I mean that we ran out of cover crop seed on a ~8 acre strip. Whoops. We then tried, and failed, to get a cover crop established there in the spring. We ultimately gave up and didn't think too much about it until we saw the yield map pictured at the right. Where there were no cover crops, there was a roughly 4 bushel drop in that red strip pictured on the right. Roughly a 25$ ROI. It's great to see things like that!



Here's another from 2017. We planted cover crops to fight a terrible soybean disease. The cover crop disrupts that disease's life cycle, making it release spores at a time they can't infect the soybeans. We left a strip without cover crops in the middle of the field. This effect won't always happen depending on weather etc, but it's great to see when it does happen. The dark strip was ~20 bushels less than the unaffected areas around it, talk about a payoff!



What's Next

So this will officially wrap up the 2018 Season newsletter series! I've had a great time doing this and it's definitely been good for our operation. In a month or so I'll make a facebook post sharing the 2019 season newsletter series, hopefully getting a few more on the email list. Sometime shortly before planting time, I'll send out an overview newsletter tailored to anyone new on the list. After that, I'll do newsletters basically like we did last season.

I just wanted to thank you all for your support and for being involved through this with us! As always, if you've got any questions, suggestions etc., we'd love to hear them. Thank you!

Frank