

Canadian AirForce Trial



Soybeans

The soybeans were planted at 200 000 plants per acre, zero tilled in to corn stubble, the soil is very sandy. They were seed treated with Cruiser Max (Syngenta) and had 1x of Apex Pro liquid inoculated and 1x of JumpStar liquid inoculated. At planting there was 1 gall of BTN+ and 1x of Apex Pro liquid inoculated applied in furrow.

100lbs	17.5 bushels/acre	60 lbs/bushel	120 000 plants per acre
250lbs	21.7 bushels/acre	60 lbs/bushel	140 000 plants per acre
350lbs	21.9 bushels/acre	60 lbs/bushel	140 000 plants per acre
Auto	23 bushels/acre	60 lbs/bushel	150 000 plants per acre

With the higher rates of down pressure there was a better stand as the disc openers cut through more corn stalks. Though when the higher down pressure rates came to the wet spot and were there had been tillage, I believe the yield was less. Thus giving AirForce in automatic mode the highest yield as it adjusted for both types of conditions.

Things to do differently next year plant soybeans in to wheat stubble and have the corn stubble worked before planting in to it. Also to have at least 1x rate of granular inoculated applied in furrow which will increase yields significantly, in a separate study we performed we applied a .5x rate of granular inoculate over the surface and planted in to it showing 20 bushel yield jumps. These things should put the plant population up, which should increase yields and in the AirForce study I think there will be a greater spread in yield and bushel weight.



350/250/100/AirForce

Sunflowers

The sunflowers were planted at 18 000 plants per acre on 15inch spacing(looked very nice compared to 30 inch), zero tilled in to oats stubble no row cleaners were used as it was very wet and row cleaners caused the gauge wheels to build up with mud. They were planted with 2 gall of BTN+ in furrow and 70 N 20P 10S applied 2 inch over 1 inch down. The soil was a heavy loam.

Go to the excel document for data.





100 lbs Down Pressure

The soil types and ground conditions varied a lot as you went across the field thus making it a very good trial. The AirForce in automatic shinned very well. Getting a minimum of 300lbs more per acre which at current markets in worth about \$75 per acre. On a side note Keeton Seed Firmers do a excellent job in sunflowers by maintaining seed depth as they can bridge very easily, the firmer lays every seed down in the trench the same direction on its side very nice.

Things to do for next year

- Run the same trial as this year but on more situation and try replicated the data
- different variety of sunflowers with AirForce Trials
- AirForce at 4 mph versus AirForce at 6 mph looking to see if AirForce can keep up
- 30 inch Sunflowers versus 15 inch Sunflowers looking for yield and quality different
- variable Rate Sunflowers versus fixed rate looking for higher yield but maintaining quality of seed
- Keeton Seed Firmer versus no seed firmer

Corn

There was two air force study completed only one of those has been harvested so far. The first on was planted at 28 000 plants per acre on 30 inch spacing. The year before it was rye under a pivot, they applied 80 units of N in ESN form with the air seeder on 10inch spacing. When it was planted there were 60 units of N applied in 28 form 2X2 and 2 galls of BTN+ applied in furrow. This is extremely sandy soils were they have grown rye for 8 years because nothing else will make money even under the pivots.

Light	100 bushel/acre	58.5 lbs per bushel	28000 population
100	95.85 bushel/acre	58 lbs per bushel	28000 population
250	90.53 bushel/acre	58 lbs per bushel	28000 population
350	88.58 bushel/acre	58 lbs per bushel	28000 population
Auto	106.9 bushel/acre	59 lbs per bushel	28000 population

This was a shocking result as it was on sand and always had lots of water, but one thing we did notice is because they used 28-0-0 and ESN and there was a lot of rain early washing the 28-0-0 away when it was V4 to V6 the more down pressure applied the yellow the corn was. The ESN had not released yet but where there was less down pressure the bigger roots system found more N or that was I believe happened.

Things to do next year is

- AirForce in automatic at 4 mph verse 5 mph
- Variable rate seeding rates



AirForce/100/250/350/AirForce



350/AirForce

Canola

Sadly with the weather we had and the field only field we seed with the planter was very wet and because of all the rain there was no where that we could fairly put a test we left this one out.

But the 60 acres of canola we managed to get in had a very hard life, but made it out the ground and all the way to maturity. Turning some heads as it yield where it grew just as good as what air seeded canola did. We believe that with the rough conditions the canola was planted in to that the Airforce was a huge part of the success.





Thing for next year
○ Variable rate population

We were very impressed with the results from the AirForce, and will perform the same test next year hopefully over more fields in different situations, because if we can replicate all of these results especially the sunflowers there will be a lot of people looking at AirForce. I have all ready had a few words with the Sunflower Association about these results and they are interested in taking it further.