

2012 KARTA research project

**Row Spacing Project
in No-till Soybeans**

Thank you for the grant

Row spacing's

- 20 Inch with fertilizer
- 20 Inch
- 10 Inch
- 30 Inch
- 15 Inch
- 7 1/2 Inch

Equipment Used

- 24row 20inch custom built White & Great Plains planter (40ft) Tractor has rtk autopilot
- 30ft 1890 John Deere air seeder tractor has rtk autopilot
- Gleaner S77 with 40ft flex draper combine has rtk ez steer
- Agleader SMS
- Excel

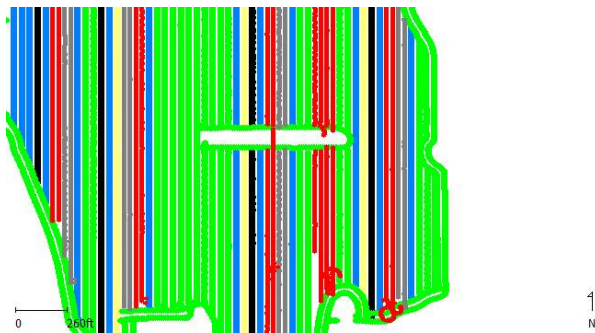
Method

- Planting 40 ft ,Drilling 60ft , & Harvesting 40ft
- Planted 20 inch row with fertilizer (120,000)
- Planted 20 without fertilizer (at 120,000 population to match with other row spacing of no fertilizer)
- Planted 30 inch (shut off 2 out of 3 rows, then planted down and back 5 inch off center in same path with population at 180,000)
- Planted 10 inch (down and back 5 inch off center in same path with population at 60,000)

- Drilled 7 ½ inch (60 ft wide)
- Drilled 15 inch (shut off back row of air seeder and adjusted rate 60ft wide)
- Previous crop of Corn on Corn or Beans , Wheat , DC beans part of which is broke out pasture
- Questions about seeding method?



Green 20" with fert. , Blue 20" no fert. , Black 30"
 Yellow 10" , Red 7.5 " , Gray 15"



20 , 30 , & 10 were with planter
 15 & 7.5 were with drill

| Average | Spacing | | | | | |
|---------|---------|-------|-------|-------|-------|-------|
| 35.3 | 20 | 32.44 | 34.65 | 33.98 | 33.53 | 42.08 |
| 34.8 | 15 | 33.03 | 32.77 | 34.27 | 34.95 | 38.88 |
| 35.5 | 7.5 | 36.24 | 33.92 | 34.98 | 34.54 | 37.76 |
| 36.1 | 20 | 32.38 | 36.87 | 36.17 | 34.3 | 40.57 |
| 34.7 | 30 | 34.58 | 35.17 | 31.89 | 32.32 | 39.47 |
| 35.4 | 10 | 32.47 | 37.08 | 33.24 | 34.3 | 39.89 |
| 35.3 | 20 | 32.9 | 33.75 | 36.3 | 33.98 | 39.6 |

| Average | Spacing | | | | | | | | | |
|------------------------------|---------|-------|-------|-------|-------|-------------------------------|--|--------------|---------|-------|
| 36.1 | 20 Fert | 31.99 | 32.43 | 32.32 | 37.56 | 37.61 | | 34.96 | 45.1 | 37.01 |
| 36.0 | 20 | 32.44 | 32.9 | 33.53 | 39.6 | 36.94 | | 36.3 | 42.08 | 33.98 |
| Average on old tilled ground | | | | | | Average on old pasture ground | | | | |
| 34.38 | 20 Fert | | | | | | | 39.02 | 20 Fert | |
| 35.08 | 20 | | | | | | | 37.45 | 20 | |

Conclusion

- Need more years of testing
- 4 gallon in furrow of 10-34-0 pays in old pasture
- Narrow rows should be better than 30 inch rows