THE FARMING SYSTEM AT "KIELLI"

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Why Controlled Traffic?

- Started Zero-till with odd sized machinery which made planters too hard to set up.
- We had a compaction problem.
- We had inefficiencies with boomsprays with foam markers

Setting Up Controlled Traffic

Swath Width - Limitations was 30 ft header front so went to 30 ft planter and 60 ft boomspray.

Tramline Widths

Limitations were:

- Track width of Toyota L/C (spray rig)
- tractors could match Toyotas but not header
- set up on 60 inch centers
- marked out controlled traffic layout with rifle sight and markers on planter

Evolution of Controlled Traffic

- started out addressing planter tracks and spray rig tracks
- soon realised that harvest machinery also had to fit into system

Machinery Adaption

Tractors - back to single 18.4 inch tyres on 60 inch centers.

Planters - downsized to 30 ft
- tramlines not planted
- multiple headstocks to allow side shift of planter
- seed cart to 60 inch centers with side adjustable hitch

Boomsprays - nozzle arrangements for alternating tramlines
- wide tyres on 60 inch centers.

Header - changed to dual 18.4 tyres on 120 inch and 180 inch centers
- hydraulic cutters (traffic way trimmers)

Chaser Bin - 18.4 inch boggie singles (radials) on 120 inch centers.
- top mounted fill auger and sweep

Results

- Allowed us to run a successful farming system (either Zero-till or Controlled Traffic on its own has limitations for the production of crops).
- Compaction levels are decreasing and water infiltration has improved.
- Because of "The System" (Combination of Zero-till and Controlled Traffic) our yields have improved 40%-50% in above average seasons and 30% in below average seasons and our cropping frequency has dramatically increased.
- Compacted tramlines allow earlier access of spray rigs and planters after rain.
- Operator convenience and less fatigue.
- Efficiencies in overlaps and misses in all operations.

The future of Controlled Traffic

- definitely here to stay
- aim to cut % of tracks in field
- 3 metres or 120 inch will be the width of the future
- wider swath widths (e.g. 40 ft) will also cut down compacted % of field.