

# MULTI FARMING SYSTEMS

## What to Look for in a No Till or Minimum Tillage Planter

For a no till or minimum tillage operation, all the farmer needs is:

- A No till seeder, a boom spray of multiple widths and a low horsepower tractor.
- Weed control via chemicals is essential, but assisted by harvesting water into the seedbed.
- Applications of seed and fertiliser/gas can be made in firm ground in one pass.

Multiplanters have all of the following features. Included is some information on what you will need to look out for if you want to go no till.

### 1. Precision seed depth.

*Must have.* Press wheel controlled seed tubes. The Multiplanter tyne is parallelogram controlled by the press wheel.

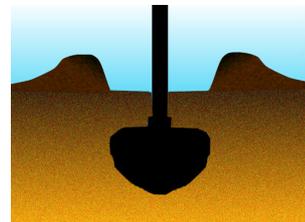


*Look out for.* If the seed tube is mounted to the tyne, and the tyne isn't independent to the frame, it can't be precision, even if it has its own press wheel. It is being depth controlled by the wheels on the frame.



### 2. Preparation of a seedbed and tilth in one pass.

*Must have.* Narrow 2" speartip with wings, and a 15 degree soil entry angle for minimal soil disturbance.



*Look out for.* Steep soil entry angles that bust the soil up and out of the trench. Discs alone do not provide a seed bed.



**3. Penetrate firm ground.**

*Must have.* Hydraulic pressure, a small 2” speartip and C shaped tyne that pulls itself in at a 15 degree angle. The Multiplanter is able to vary pressure on tynes from the tractor cab on the run.

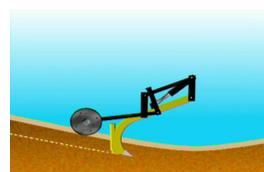


*Look out for.* Springs can't be adjusted on the run. Watch out for hydraulics that have fixed pressure and can't be adjusted from the cab on the run.



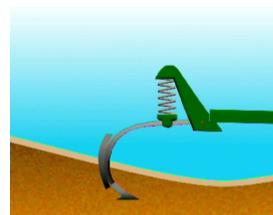
**4. Fuel consumption savings.**

*Must have.* The depth of the digging tip controlled. Multiplanter press wheels control the depth of each individual digging dig, so there are even trenches over undulating country, with no bulldozing or skimming.



Multiplanter

*Look out for.* Uncontrolled digging tips, where there will be skimming and bulldozing.



Conventional

**5. Power requirement savings.**

*Must have.* The ability to pull extremely wide machines with smaller tractors. At normal depths, a D11 will be able to pull a 302ft Multiplanter with 273 tynes at 4 hp per tyne.



*Look out for.* Digging tip fixed to the frame and not depth controlled.



**6. Optimal trashflow.**

*Must have.* High 33" underframe clearance, C shaped tyne, large wheels fore and aft, min 13 1/3" rows to allow trash to roll through.



*Look out for.* Wheels inside the frame and straight tynes. Low underframe clearance, with narrow row spacings.



**7. Planting on the calendar (moisture seeking).**

*Must have.* The Multiplanter has the ability to plant into subsoil moisture down to 9" deep.



*Look out for.* Planters that can't vary the depth of the seed placement. Operations will be limited to good planting seasons only.

**8. Water harvesting.**

*Must have.* The ability to channel water directly to the crop and deprive weeds on the mound of moisture.



*Look out for.* Press wheels that are wider than the tip, they will not be able to penetrate the trench. Discs do not allow for collection of water.



**9. Hard wearing with little maintenance.**

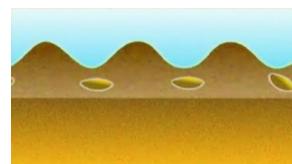
*Must have.* Multiplanters have little wear and maintenance. Demonstrated is the wear of a 19 year old bolt from a parallelogram pivot point. There is no opportunity to wear when the tyne is under hydraulic pressure.



*Look out for.* Disc machines, machines with lots of grease points and castings, parallelogram tynes not under pressure, tips without adequate long life protection and pneumatic press wheels that will puncture.

**10. Minimum of 13 1/3" row spacings.**

*Must have.* Accurate seed placement, planted at speed, and placed at the bottom of the trench.



*Look out for.* Smaller row spacings that throw soil into the adjacent seedbed, compromising depth.

**11. Germination**

*Must have.* The ability to plant shallow, compact each seed in moist soil, so that every seed can come up, quickly and evenly.



*Look out for.* Gangs of press wheels, not individual press wheels. They won't follow each individual tyne and pressure under them may be uncontrolled.



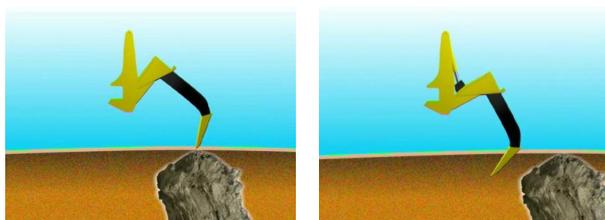
**12. Seed to soil contact – Press Wheels.**  
*Must have.* Large 18” diameter semi pneumatic. Wedge for sandy soils, flat for all other soil types. Less revolutions means longer bearing life, semi pneumatic smear less than solid rubber.



*Look out for.* Pneumatics puncture too often. Small diameter press wheels are a maintenance problem and battle to turn in rough country.



**13. Stump Jumping Ability**  
*Must have.* The ability to set the breakout to whatever level is desired. The Multiplanter tyne and press wheel come up in unison (renovator tyne shown). Slow hydraulic release after compression.



*Look out for.* Springs which get stronger as they compress. Torque transference causes premature metal fatigue.

