



NG Plus Series

Custom Built Planters



12x2 Twin-Row planting corn into cover crop, Nebraska

Quality - Versatility - Value



Single Row

Sugarbeets in North Dakota



Ultra Narrow Row

UNR Rice in Arkansas

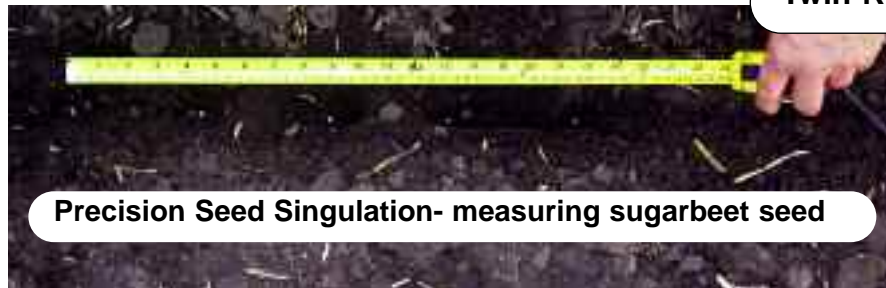


Twin-Row

Twin-Row Silage Corn in California

### Over 30 Years of Research and Development

Twin-Row vs. Single Row Yield Studies



Precision Seed Singulation- measuring sugarbeet seed



Improvements for No-till & Min-Till



Precision Meter Box: Continual Upgrades



Ultra Narrow Row Rice



Twin-Row vs. Single Row Yield Studies



### Monosem Advantages Add Up:

Monosem recognizes the need for every farmer to achieve the best results from the seeds they plant.

For that reason, Monosem concentrates exclusively on building precision planters and supplying each farmer with a **custom-built** machine.

From the core of the machine to the options and accessories, each Monosem planter is engineered to include the **four** critical factors needed to achieve best planting every time, no matter what your planting needs.

#### 1.) Accurate Seed Singulation

Each planter utilizes the Monosem vacuum metering system, which holds the seed gently onto the holes of the seed disc. The flat surface of the heavy-duty stainless steel seed disc accepts a wide variety of seeds, whether irregular or round, coated or uncoated, without any loss in accuracy.

#### 2.) Accurate seed spacing

The Monosem patented metering box contains a single adjustment lever that adjusts the height of the seed scraper and the vacuum pressure at the same time. The scraper aligns the seed to the hole and eliminates doubles and skips. As the seed disc turns, a brass ejector block assures that the seed is dropped at a consistent angle, reducing seed bounce inside the seed tube and resulting in precision seed spacing every time.

#### 3.) Consistent depth control

The double disc openers are flanked by independent large depth gauge wheels that are engineered with an equalizing rocker bar. This assures uniform depth control, even in cloddy or rocky conditions.

#### 4.) Good seed to soil contact for germination

Monosem offers a selection of closing wheels to give you the necessary seed to soil contact for good seed germination in any soil condition. The popular V press wheels are independently mounted and are adjustable for shallow, medium or deep planting.

Monosem takes pride in each custom built planter, designed with these four critical factors in mind for the ultimate in precision planting. Always accurate and dependable, Monosem planters are engineered with you in mind— for the best way to grow!

## The Vacuum System

The vacuum is created through the turbofan, driven by a PTO or a hydraulic motor. A lever on the metering box allows you to adjust the vacuum level to the weight of the seed being planted. As the seed disc turns, a brass ejector block assures that the seed is dropped at a consistent angle, reducing seed bounce inside the seed tube. The results are precision seed spacing every time.

## The patented Monosem metering box

The patented metering box is the heart of the Monosem NG Plus planter-- it doesn't skip a beat. Each component of the metering system is precision engineered to ensure accurate seed singulation *every time you plant*. There is no plastic used in this critical part of the machine, only durable metal parts that won't warp or easily wear.



**500 Standard Turbofan**  
One of three output speeds available with PTO or hydraulic drives.

## Quality Construction - Long Term Use

### Cast aluminum

The precision engineered cast aluminum metering box will maintain its accuracy year after year, even with exposure to the harsh elements! Plus, its special shape allows for planting even when a minimum of seed is left in the hopper. Contains sealed bearings for durability.

### Replaceable wear surface insert

The wear insert (the only plastic in the meter box) protects the metering box from wear and extends the life of the metering system components. Plus, it is easily removable and replaceable.

### Rigid stainless steel seed discs

Durable and long lasting, the seed discs are made of 1.6 mm thick stainless steel and are specially designed with precision hole size and spacing-- all to ensure accurate seed singulation for years to come. A large selection of discs are available to suit a wide variety of row crops.

### Curved seed tube

The seed tube is specially shaped to guide the seed gently into the seed trench, eliminating seed bounce.



### Seed scraper

As the seed disc turns, an easily adjustable brass scraper ensures that only one seed is accurately positioned on the hole of the disc.

### Stainless steel seed disc

The flat surface of the heavy-duty stainless steel seed disc accepts a wide variety of seeds, whether irregular or round, coated or uncoated, without any loss in accuracy.

### One simple adjustment, two functions!

The adjustment lever proportions the air suction to the weight of the seed, and at the same time sets the height of the seed scraper to the size of the seed. This unique design (monosem patent) allows for a wide range of seeds to be planted with one seed disc.

## Durability, Accuracy and Consistency

### Innovative Engineering combined with Quality Construction produces exceptional value from start to finish.

The precision of the metering box results in accurate seed singulation. Seeds are suctioned to the seed disc, not blown or held in a cup, as with a air systems that require a round sized seed. Stainless steel seed discs with a smooth flat surface and a cast aluminum housing provide long life and gentle handling of the seed.



Right Side Ext.

### Corn Seeds on a 18 Cell Disc

Meters any seed size between canola and kidney bean, custom discs also available by special order, hill planting triple drop seed discs etc.

## Easy to change from crop to crop!



The correct seed disc is selected based on the size and weight of the seed. For example, one bean seed disc can plant a wide variety of bean seeds. To plant different crops, you need only adjust the metering box singulator (adjusts both vacuum and height of the scraper) and change the seed disc.

### Change seed discs in 4 easy steps!

1. Remove cover by loosening wing nuts.
2. Lift out seed scraper and seed disc.
3. Insert new seed disc and scraper.
4. Replace cover, and tighten with wing nuts.

The trap door provides easy access to empty the metering box, no need to remover hopper box or meter.

## Standard turbofan



The QUIET turbofan with 12 outlets features a shield that protects against rain and raises to indicate that the turbofan is operating. Standard PTO speed of 540 rpm, on request 450 rpm and 1000 rpm. Optional hydraulic drive is available instead of PTO.

## High output turbofan



A high output turbofan with 12 or 16 outlets is available for larger machines that plant bigger seed or higher populations. Standard PTO speed of 540 rpm, on request 450 rpm and 1000 rpm. Optional hydraulic drive is available instead of PTO.

## Extra High output turbofan

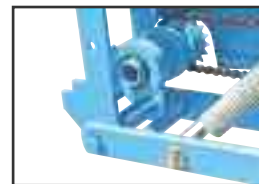


The extra high output turbofan offers the most volume of air. It is commonly used with planters that are 16-Row and larger. Can be used with either a PTO or a hydraulic motor. Most larger planters available with vacuum in the toolbar.



### Heavy-duty parallel linkage

The parallel linkage is longer than conventional linkage, ensuring a smooth ride through the field and reducing the bounce of the unit.



### Stabilizer springs

Sturdy springs absorb shock and help to stabilize the unit in rough terrain. Optional heavy-duty down pressure springs also available.

### Optional Safety clutch

The mounting bracket of the metering unit has a roller bearing with an audible safety clutch in case of blockage. This clutch also absorbs the stress on the drive and makes the seed disc run smoother, resulting in increased accuracy.

### Long life chain

Superior surface hardness increases wear resistance and extends the life of the chain.

### Replaceable rock shield

The rock shield is easily removable and replaceable to extend the life of your planter.

### Adjustable opening knife

Opening knife is independently adjustable to push rocks aside and prepare a clear path for the disc opener.



### Large adjustable clod remover

Mounted in front of the disc openers, it pushes clods away in preparation for the seed trench. Optional residue manager, no-till coulters and floating clod remover available.

### Unit lock up

Engage the lock up to keep the unit out of the ground while the metering is disengaged, adding flexibility in row spacing. A great feature for versatility of crop change.

### Large heavy-duty plastic hopper

A 2 bushel capacity is standard with 3 bushel hoppers available.

### Disengagement of metering box

Removal of a single lynch pin will disengage the seeding of the unit, adding to the versatility of the planter unit.

### Depth control knob

Easy to use handwheel sets the planting depth by adjusting the height of the gauge wheels, and the setting is visible on the adjustment scale.



### Replaceable wear bushing

The wear bushing between the arm and the spindle is easily replaceable to extend the life of the planter.



### Independently mounted adjustable V press wheels

The adjustment allows for shallow (beet), medium (corn), or deep (bean) planting. Optional disc closing system with flat or V press wheel is available.

Optional gauge wheel scraper can be mounted for sticky soil.

### Independent large depth gauge wheels

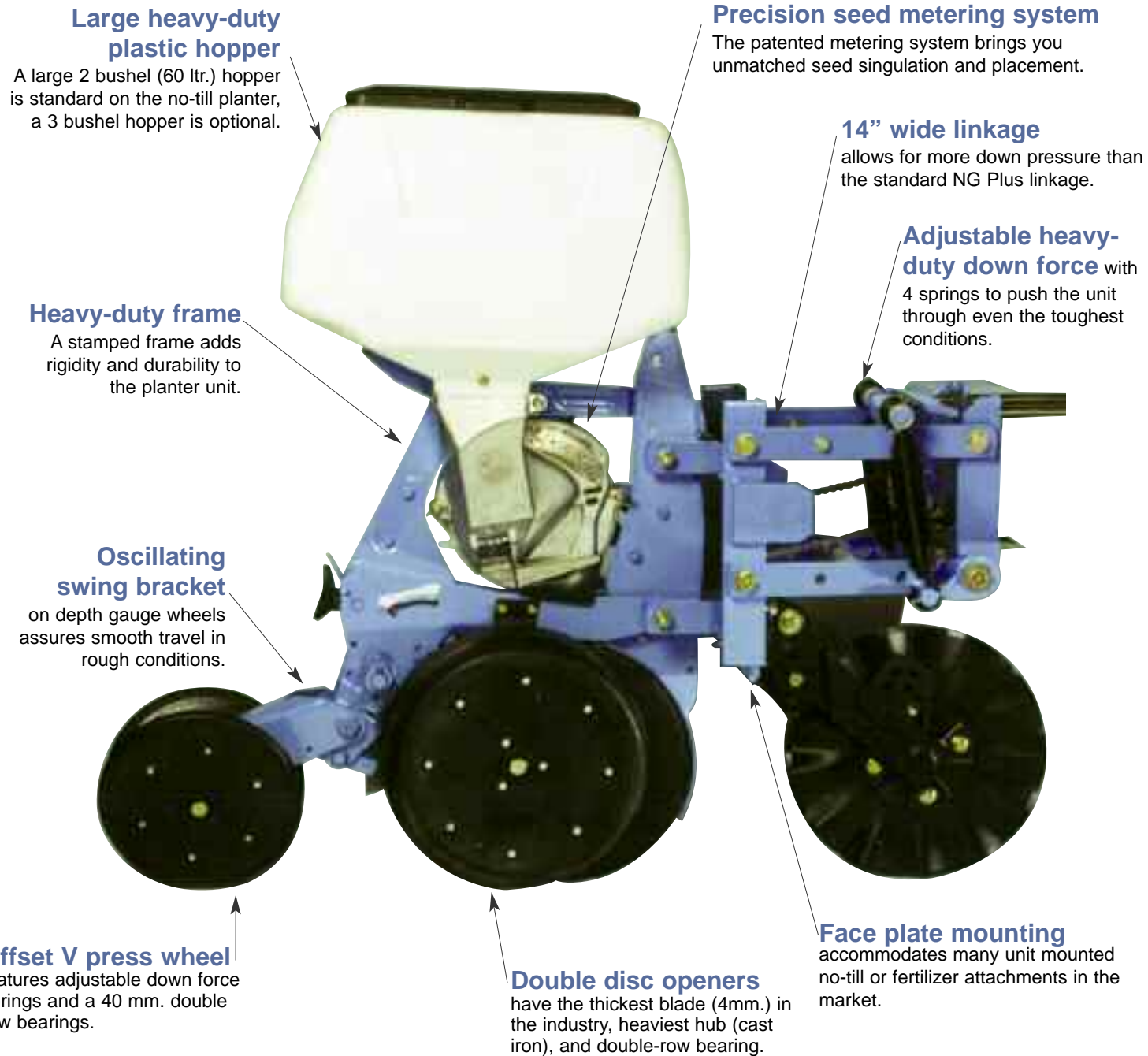
The gauge wheels are engineered with an equalizing rocker bar, allowing the wheels to move up and down independently while maintaining a stable center point. This stable point coincides with the seed tube drop, assuring accurate depth control even in cloddy conditions. Narrow or double gauge wheels are also available.

### Heavy-duty double disc opener

The double disc opener has the thickest blade (4mm.) in the industry, the heaviest hub (cast iron), and a double-row bearing. This results in longer life, less replacement, and less maintenance. The powerful disc slices the soil, opening a straight seed trench. A firming point attached to the frame and positioned ahead of the seed tube also acts as a disc scraper.

## No-Till meets precision planting

The NG Plus no-till planting unit brings you the precision of NG Plus planting in even the toughest no-till conditions! The no-till unit uses a wider, shorter, parallel linkage that allows for more down pressure. When adding your choice of no-till accessories, this heavy-duty planter becomes a workhorse to cut through the residue in the field.



**Unit mounted residue manager**  
moves residue (not soil) for better seed to soil contact.



**Toolbar mounted spring-loaded no-till coulters**  
has the ability to mount to any size toolbar.



**Unit mounted no-till coulters/residue manager combo**  
first moves residue in the rows, then cuts an opening for the row unit.



Quick adjust knob easily regulates depth control of the residue manager

**Face plate bolt-on mounting**  
Standard on the Monosem no-till row unit to accommodate most unit mounted no-till or fertilizer attachment.



**Unit mounted no-till coulters**  
cuts an opening directly in front of the double discs in tough soil conditions. Available in several blade choices to fit your soil conditions.



Vertical adjustment accommodates blade wear

## Many Custom Options

### Specifications

#### 5x5 Mounted Planter

**FRAME:** 3-point mounted  
Rigid single toolbar, 5x5  
Rigid double toolbar, 5x5 bottom, 5x5 top

**PLANTING UNIT: NG Plus MONOSEM**  
Vacuum metering box  
Double disc opener/gauge wheels  
Adjustable "V" closing wheels

#### STANDARD ROW SPACING

##### 2 Row 30-40"

Single toolbar rigid frame  
8' transport width, 972 lbs.\*

##### 4 Row narrow 30" rows

Single toolbar rigid frame  
9'6" transport width, 1510 lbs.\*

##### 4 Row wide 36, 38, & 40" rows

Single toolbar rigid frame  
11'6" transport width, 1540 lbs.\*

##### 6 Row narrow 22-30" rows

Single toolbar rigid frame  
14'9" transport width, 2010 lbs.\*

##### 8 Row narrow 22-30" rows

Single reinforced toolbar rigid frame  
20' transport width, 2960 lbs.\*

#### DRIVE SYSTEM

Ground drive  
Two drive wheels on single toolbar

#### GEARBOX

One on single and double toolbar

#### HITCH

Category II & III, narrow and wide, bolt on and adjustable Category I pins available

#### MARKERS/ HYDRAULICS

Single marker on single frame

Double folding marker on double toolbar frame

Hydraulic hoses of the markers can be connected to a single remote with manual or automatic sequence valve

\*Shipping weight reflects base machine only, does not include accessories such as double gauge wheels, granular insecticide or fertilizer applicator.

### Versatile -

NG Plus 4-row planter with dry fertilizer planting in Massachusetts. A unique planter with wheels on the end of the toolbar to allow the units to slide on the bar for different row spacing combinations. Plants 2-4 rows of sweet corn 36" apart. Later in the season, just move the units over to plant narrow row for beans, cucumber, beets, or spinach. Or, simply lock up 2 units and use as a 2-row planter for pumpkins, squash or watermelons.



### Durable -

NG Plus 12-row planter 22" row spacing with 7x7x3/8" toolbar frame, air insecticide system, and row markers. Planter shown planting sugarbeets in the Red River Valley, North Dakota. This diverse planter can also be used to plant edible beans, sunflowers, field corn and soybeans.

### Easy Adjust -

NG Plus 6-row planter with 36" row spacing and mounted double toolbar shown planting cotton in Georgia. A 5x5 top toolbar combined with a 7x7 bottom toolbar eliminate stress on the top link of the center mast. The end mounted seed spacing transmission needs no tools for adjustments and makes changing populations easy. Standard adjustable drive wheels are used for flat planting or on beds, and the tractor tread tires reduce slippage. This machine is easily changed over to plant crops such as peanuts, corn, soybeans, and vegetables.



### Twin-Row- NG Plus 12x2

Twin-Row planter pictured with optional cast iron closing wheels. The Twin-Row planter is able to plant multiple sets of Twin-Rows, with 7.5" to 9" spacing within the Twin-Row. Staggered row units on one common toolbar allow for better residue flow and easier handling for transport. Planter is shown planting in Mississippi Delta and can be used for corn, soybeans, sorghum, peanuts & more.



### Stacking Frame, NG Plus 8x2

Twin-row planter on a 7x7" 30-40" stacking toolbar frame. Features a 5"x7" toolbar hitch for strength, durability, and which doubles as the vacuum bar. A quick raise of the outer arms stacks the planter units upright for easy transport, eliminating the need to empty hoppers. The stacking toolbar is also available in many configuration from 8-row 38" to 24-row 22" in Single row and Twin-Row. Twin-Row planter shown.



### Custom

#### Configurations-

NG Plus 9-row planter in Michigan used for planting carrots in groups of 3 rows. This planter is also a popular model for planting pickles. Using a standard NG Plus unit with disc openers allows you to cut through difficult soil in minimum or no-till situations.

### Specifications

#### 7x7 Mounted Planter

**FRAME:** 3-point mounted  
Rigid double toolbar, 7x7 bottom, 5x5 top  
Stacking toolbar 7x7

**PLANTING UNIT: NG Plus MONOSEM**  
Vacuum metering box  
Double disc opener/gauge wheels  
Adjustable "V" closing wheels

#### STANDARD ROW SPACING

**6 Row Wide 36"-40" rows**  
Double toolbar rigid frame  
20' transport width, 2954 lbs.\*

##### 6x2 Twin-Row

Rigid 20' frame, 4560 lbs.\*

##### 8 Row Narrow 30" rows

Double toolbar rigid frame  
20' transport width, 3476 lbs.\*

##### 8 Row Wide 36-40" rows

Double toolbar rigid frame  
25' transport width, 4180 lbs.\*

##### 8x2 Twin-Row 36-40"rows

Rigid Toolbar  
27' transport width, 5960 lbs.\*  
Stacking Toolbar  
12'7" transport width, 7000lbs.\*

##### 12 Row Narrow 22-24" rows (Sugarbeet)

Double toolbar rigid frame  
23' transport width, 5120 lbs.\*

##### 12 Row Narrow 30" rows

Stacking toolbar frame  
15' transport width, 4440 lbs.\*

##### 12 Row Wide 36-40" rows

Stacking toolbar frame  
19'8" transport width, 4678 lbs.\*

##### 12x2 Twin-Row 38-40"rows

Stacking Toolbar  
19'8" transport width, 11500lbs.\*

#### DRIVE SYSTEM

Ground drive  
Two drive/gauge wheels on 6, 8, and 12-row 22-24" models.  
Four drive/gauge wheels on 12-row 30-40" stacking models

#### GEARBOX

One on 6-row toolbar  
Two on 8 & 12-row toolbar  
Three on stacking toolbar  
Variable rate drive available on all models.

#### HITCH

Category II & III, narrow and wide, bolt on and adjustable

#### MARKERS/ HYDRAULICS

Single folding marker on 6-row narrow toolbar frame  
Double folding marker on 6-row wide 12-row narrow toolbar frame  
Rear folding marker on stacking toolbar frame  
Hydraulic hoses of the markers can be connected to a single remote with automatic sequence valve

\*Shipping weight reflects base machine only, does not include accessories such as double gauge wheels, granular insecticide or fertilizer applicator.

# NG Plus Pull-Type Planters: Single Row, Twin-Row & UNR

## Specifications

**FRAME:** Pull-type  
Rigid frame 4, 6, & 8-row hydraulic  
Center flex with hydraulic front fold 12, 16, & 24-row

**PLANTING UNIT: NG PLUS MONOSEM**  
Vacuum metering box  
Double disc opener/gauge wheels  
Adjustable "V" closing wheels

### STANDARD ROW SPACING

4-Row narrow 30" rows  
4-Row wide 36 or 38" rows  
6-Row narrow 30" rows  
6-Row wide 36 or 38" rows  
8-Row narrow 22-30" rows  
12-Row narrow 30"-36" rows  
16-Row narrow 30" rows  
18-Row 28" rows  
24-Row 30" rows  
24-Row narrow 22-24" rows  
36-Row 22" rows

### DRIVE SYSTEM

Spring-loaded contact drive tire (4.10x6") with No. 40 chain. One on 4-row. Two on 6, 8, and 12-row. Four on 16 and 24-row + No. 50 chain.

Quick-adjust end mounted seed transmission with machined sprocket (2 on 12, 16, and 24-row)

Hex drive (7/8") and drill shafts (with spring-loaded, hardened wing couplers on 12, 16, and 24-row)

Variable rate hydraulic drive system available on all models.

### TYPE LIFT

Master/slave/hydraulics  
4-row master/slave rephasing (2 cylinders)  
6 and 8-row master/slave rephasing with assist cylinders (4 cylinders)  
12-row master/slave rephasing with assist cylinders (6 cylinders)  
7.5"x15" tire on sizes up to 24-row 22". 14"x16" tires standard on all larger frames.

### MARKERS

Heavy-duty conventional: 4-row narrow/wide and 6-row narrow  
Low profile two-fold: 6-row wide and 8-row narrow  
Low profile three-fold: 12, 16 & 24-row

### HYDRAULICS

Hydraulics for 4, 6, and 8-row  
Standard: Single SCV  
Optional: Dual SCV for independent operation of lift and markers  
Hydraulic alternating sequence valve with flow controls for markers

Hydraulics for 12, 16, and 24-row  
Dual SCV for independent operation of lift and markers. Hydraulic sequence valve with flow controls for markers

### OPTIONS

Liquid fertilizer  
Dry fertilizer  
Granular insecticide/herbicide  
Air insecticide system



### Pull-Type Planter

shown as a 18x2 Twin-Row 40" Pull-Type 60' planter planting sorghum in Texas. Precision vacuum metering meets a Tough Pull-Type frame with double 7x7 heavy wall steel tubing. Plant your regular field crops such as corn, soybeans, sorghum, rice and cotton with accurate precision, *plus* use the same planter for the planting of specialty crops such as peanuts, sweet corn, sugarbeets, pickles, and squash. A wide range of seed discs are available to fit your every need.



### Narrow Transport

Plant wider and transport as narrow as 13' 6". Hydraulic control box in your cab enables you to go from field mode to transport mode in under one minute. Shown here as a 36-Row 22" planter. This planter also features the optional **Liquid fertilizer**, shown with two 400 gallon tanks. Includes fertilizer openers and piston pumps.



### Narrow Transport

Available as single row 12-Row 30" up to 36-Row 22" and as Twin-Row 12x2, 16x2, and 24x2 30-36". Shown here as a 24-Row 30" Pull-Type 60' with vacuum in the toolbar and liquid fertilizer. Central Fill system optional.



### Sugarbeet Planter

NG Plus 24-row planter with pull-type double toolbar shown planting sugarbeets in North Dakota. The end mounted seed spacing transmission needs no tools for adjustments and makes changing populations easy. Use the same machine to plant alternative crops such as soybeans, sunflowers, corn and edible beans.

## Ultra Narrow Row Precision

Precision plant hybrid or standard rice with low input seeding! Easily converts to twin-row by locking up row units.

### Models Available in Mounted or Pull-Type up to 40'



## UNR Planters



See accurate seed singulation from the Monosem NG Plus metering system that is unmatched by any drill. The heavy-duty stainless steel seed disc allows for even the most irregular seed shape to be suctioned and gently held to the disc. Allows you to plant low rates without wasting seed.



The Monosem UNR planter features staggered row units that give better residue flow and easier handling for transport. This unique design allows the producer to go from 9.5" drill spacing to Twin-row 38" centers.



UNR Mounted Stacker with Central Seed System

**CSS  
Central Seed System**

On demand bulk seed delivery system optional. Shown here on a 16x2 Twin-Row 30" planter. CSS carries the seed to the mini hoppers via air flow. Available with one or two 50 bu. tanks.



**Monoshox®  
Heavy Duty Linkage**

provides dampening for all tillage practices

- Lower linkage accommodates a variety of attachments.
- Minimizes row unit bounce.
- More consistent seed depth.
- Better seed spacing.
- Higher planting speed.
- Heavy Duty - holds up in the toughest no-till conditions.



**For Precision Twin-Row:  
Sync-Row® timed alternating seed drop for Twin-Row**

The Sync-Row® system was developed to maintain the staggered seed drop & create the diamond pattern. A dial on each meter box easily adjusts the position of the seed disc to synchronize seed drop.

**Microsem**

meters microgranular products such as insecticide and herbicide with unequalled precision. The microsem is ground driven with a positive displacement, and the output is set by means of a transmission which makes it unaffected by a change in planting speed. The microsem system is mounted to the toolbar frame to reduce weight on the planter unit. Each microsem hopper has a 33 or 50 lb. capacity.



**Air granular system**

available for 12-24 row planters. Only one central hopper to fill with a capacity of 450 lbs., and only one dial to set (two on 24-row planter).



**Optional Pull-type dry fertilizer**

includes a heavy-duty double disc opener. 4-row has 2 hoppers, 1100 lb. capacity; 6-row, 3 hoppers, 1650 lb. capacity; 8-row, 4 hoppers, 2200 lb. capacity. Rates are easily adjusted from 40 to 600 lbs. per acre.



**Granular insecticide herbicide system**

mounted to the planter unit and holds up to 70 lbs. of dry granular chemicals. Features a hand clutch to engage/disengage the metering mechanism for easy removal of the hopper. Lock and load valves are available for all three granular insecticide systems.



**Electronic seed monitor, MPM I or II**

models feature a bar graph for each row and an audible alarm for malfunctions. The MPM II displays additional data such as seed population, seed spacing, and area planted. Both have non-volatile memory.



**Flat press wheel with disc closing system**

has twin offset discs, adjustable down pressure spring, and an independent spring-loaded adjustment for discs. Ideal for cotton or other shallow planted crops.



**V press wheel with disc closing system**

has twin offset discs, adjustable down pressure spring, and an independent spring-loaded adjustment for discs.





## The Advantages of Precision Twin-Row



12x2 Twin-Row in Mississippi.

### Monosem Twin-Row Advantages:

- Better plant spacing results in less competition for nutrients and moisture, better root development and stronger plant
- Quicker canopy results: controls weed pressure, conserves moisture
- One investment: Harvested with conventional equipment.
- University and Farmer studies indicate increased yields of 8% - 16%.
- Ability to increase populations.

### How Twin-Row works

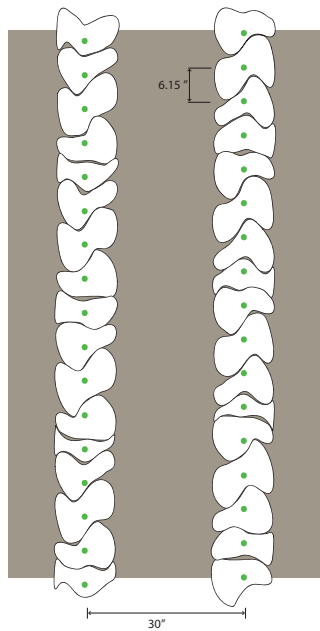
Twin-Row crops are planted with a staggered seed drop, allowing for more growing room and better canopy than single rows. As a result of the Twin-Row configuration, plants and their roots are spread over a larger area. The plants catch more sunlight and nutrients, making for healthier, more uniform crops. Monosem helps make this possible with the precision metering system.

The Monosem Twin-Row advantage helps you achieve higher yields, reduced seed costs, and precision planting every time!

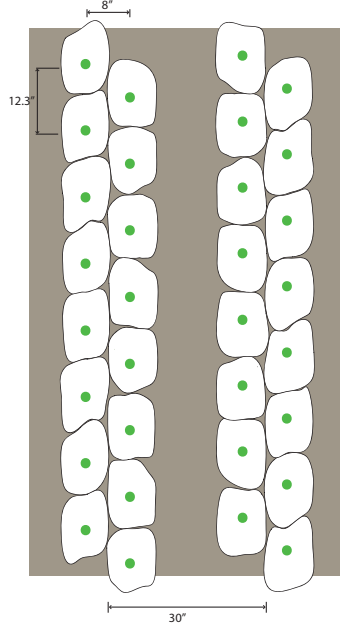
## Single Vs. Twin-Row

### Scale Root Mass Comparison on 0.001 Acre plots (60in.x104.5in.)

**Single Row Corn**  
Population density on 0.001 acre  
@ 34,000 seeds/acre



**Twin-Row Corn**  
Population density on 0.001 acre  
@ 34,000 seeds/acre



Optimal spacing, bigger root mass, better uptake, faster canopy, less water, bigger plant, fewer weeds, higher yield.

Harvested with conventional corn heads, on 30", 32" or 36" row spacing.



Twin-Row peanuts, Georgia

The Twin-Row pattern induces an upright canopy with well defined wheel middles. This aides in digging, inverting and harvesting the crop.



Twin-Row silage corn , California

In University studies, Twin-Row crops canopy quicker to conserve moisture and reduce weed pressure, and are shown to have less disease.

Monosem is dedicated to bringing you the best in planting technology, helping you achieve best results from the seeds you plant.

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