GRAIN DRILLS

9312 | 9412 | 9413 | 9421 | 9435 | 9510 | 9531 | 9610 | 9830 | 9850 | 9920 | 9930



THIS IS SUNFLOWER.

Quality and service never go out of style, regardless of the era or the industry. So it's easy to see why Sunflower has grown to become one of the most recognized names around the world for top-quality agricultural products.

It all started more than 70 years ago when Charles Fleming and Orland Hazen formed a partnership in 1941 and bought the Sunflower Express Truck Line. Four years later, in 1945, they bought the patent rights to the "Diamond Packer", and ventured into the farm equipment market through production in a small garage in Beloit, Kansas.

Using a series of heavy-weight cast wheels, the Diamond Packer formed a line of diamond shaped holes in the ground, when pulled behind a plow or disc, to prevent wind and water erosion. Sunflower eventually sold the product line to a company in southwest Kansas, to concentrate on other ventures ... like the need for flexible tillage tools to follow field contours and terraces. In 1961, Sunflower introduced the three-section, flexible stubble mulch blade plow — the first of its kind on the market and Sunflower's first flexible tillage product.

Six years later, Sunflower introduced a flexible chisel plow, followed in 1968 by a flexible offset disc. In 1971, the entire tillage line was redesigned to add more sales appeal in a market that had grown to

include most of the Midwest's "High Plains" area. In fact, Sunflower went through several years where sales and earnings were doubling every year.

In the mid-70s, Sunflower's engineering team developed the idea of combining a regular two-section offset disc with another left-handed version, making a double offset disc with four sections.

In addition to patenting the four-section disc in 1975, Sunflower also began expanding its sales into the Corn Belt with a new coulter chisel. At the same time, the company moved to its current location on the outskirts of Beloit — the third move since the company's formation.

From that time, Sunflower has expanded the facilities two additional times; been purchased and consolidated by several previous owners, and acquired a number of other companies, including Flex-King, Richardson Manufacturing Co., the Best Grain Drill line from Best Manufacturing, and Richardton Dump Wagons.

In November 2002, Sunflower was acquired by AGCO Corporation. Today, as part of AGCO Corporation, Sunflower tools carry on the quality and service tradition with proven design, coupled with new technology and unprecedented customer service that hasn't wavered in seven decades.



9312 PASTURE DRILL

Large Capabilities In A Small Package

The Sunflower Model 9312 may commonly be referred to as a pasture drill, but don't let the name fool you. This tough, compact grain drill can handle all kinds of conventional and no-till seeding assignments. Granted, it's ideal for pastures, which require re-seeding due to drought or over-grazing. Available in 7 1/2', 10' and 15' models, the 9312 is just as effective for seeding grass along highways and electrical highline right-of-ways and for seeding wildlife food plots and small fields. Small doesn't mean weak, though. The Model 9312 pasture drill is built with the same heavy frame and quality guidelines as the rest of Sunflower all-purpose grain drills line.

Customers will also appreciate its special end-wheel design, which positions the all-purpose openers and the end wheels in line for uniform performance even on rough terrain. When seeding side hills and sloped fields, the end wheels also act as stabilizers to hold the openers steady — without subjecting the openers to the extreme side pressures encountered by caddy-mounted units.



9312 GRAIN DRILL



1. END WHEEL DESIGN - End wheels are positioned in-line with openers for precise seed depth control even on rough terrain and no-till fields.

2. EXTRA HEAVY FRAMES -

Heavy-duty $3/8" \times 7" \times 7"$ main frames are coupled to a $3/8" \times 3" \times 5"$ opener frame to create a sound foundation for all Sunflower grain drills.

3. DRIVE MECHANISM - The seed meter drive features maintenance-free steel sprockets, #50 HD chain, a springloaded chain idler and a spring-loaded drive wheel to ensure constant soil contact.

4. OPTIONAL SEED METER DIVIDER

TENTS - Divider tents facilitate seed flow to meters and minimize the need for manual cleaning of hopper bottoms. **5. 8" OPENER STAGGER** - Allows crop residue to flow through the openers and not gather within. All Sunflower grain drills feature a full 8" of front-to-rear opener stagger that allows crop residue to flow through the openers without bunching or gathering.

6. QUICK MANUAL ADJUSTMENTS -

Simple, easy seed meter adjustments can be performed by turning a single star nut which sets all connected meters at the same time, to the same rate.

7. ALL PURPOSE OPENERS, MULTI-PURPOSE DRILL - This rugged pull-type all purpose drill can also handle seeding along highways, ditches, right-of-ways and other

difficult applications.

- 8. OPTIONAL OPENER SHIELD ASSEMBLIES - Align and deflect stalk residue to prevent buildup in the drill openers.
- **9. GRASS SEED BOX AGITATOR** -Facilitates continuous seed flow to meters.

9312 GRAIN DRILL SPECS



"Heads Up" Opener Design

MODEL NUMBER	9312-07	9312-10	9312-15
Width (m)	7.6' (2.3)	10' (3)	15' (4.6)
# Openers 7 1/2" (191 mm) Spacing	12	16	24
# Openers 10" (254 mm) Spacing	9	12	18
Hopper Capacity bu (L) (2.4 bu per ft) (84.6 L per .3 m)	18 (634)	24 (846)	36 (1269)
Weight (7 1/2" (191 mm) Spacing) (kg) (10" (254 mm) Spacing) (kg)	3,859 lbs. (1750) 3,481 lbs. (1579)	4,840 lbs. (2195) 4,290 lbs. (1909)	7,222 lbs. (3276) 6,406 lbs. (2906)
Transport Width (m)	10' (3)	13' (4)	18' (5.5)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.

9412 THREE-POINT MOUNTED DRILL

A Genuine Three-Point, No-Till Machine

The Sunflower Model 9412 all-purpose grain drill is not only extremely versatile, but one of the only mounted, true no-till grain drills on the market. In just a matter of minutes, it can be hand adjusted from conventional seeding to minimum-till seeding right on through heavy-residue no-till applications. Plus, the drive wheels can be slid in or out on the hex shafts for different row spacing.

Available in four widths from 10' to 20', this heavy-weight, rigid seeder adapts to either Category II or III hitches for close coupling and a tight turning radius that translates into greater maneuverability. Yet, it can be easily converted to a pull-type machine for use with a smaller tractor or one without a three-point hitch by simply adding Sunflower's transport pull hitch.



- **1. LOW-PROFILE GRAIN BOXES** The 16-gauge metal box features seed capacities of 2.4 bushel per foot. Wide lids facilitate loading and easy cleanout. 3.0 bu. per foot on 12.5' models.
- **2. EXTRA HEAVY FRAMES** Heavy-duty 3/8" x 7" x 7" main frames are coupled to a 3/8" x 3" x 5" opener frame to create a sound foundation for all Sunflower grain drills.
- **3. DRIVE MECHANISM** The seed meter drive features maintenance-free steel sprockets, #50 HD chain, a spring-loaded chain idler and a spring-loaded drive wheel to ensure constant soil contact.
- OPTIONAL SEED METER DIVIDER TENTS Divider tents facilitate seed flow to meters and minimize the need for hand cleaning of hopper bottoms.
- **5. ACCURATE METERING BUT EASY ON THE SEEDS** All Sunflower grain drills feature gentle nylon seed cups with six internal flutes, which accurately meter a wide variety of seeds without causing seed damage.
- **6. 8**" **OPENER STAGGER** Allows crop residue to flow through the openers and not gather within. All Sunflower grain drills feature a full 8" of front-to-rear opener stagger that allows crop residue to flow through the openers without bunching or gathering.

7. QUICK MANUAL ADJUSTMENTS -

Simple, easy seed meter adjustments can be performed by turning a single star nut which sets all connected meters at the same time, to the same rate.

- **8. QUICK-ATTACH 3-POINT MOUNT** Standard feature on all Sunflower Transport Pull Hitches, the quick-attach allows the operator to hook up or unhook from the grain drill quickly and with ease.
- **9. SINGLE POINT DEPTH CONTROL** Allows the operator to set a positive drilling depth or can be set to transfer all weight of the 3-point hitch to the drill when conditions warrant.
- **10. OPTIONAL OPENER SHIELD ASSEMBLIES** Align and deflect stalk residue to prevent buildup in the drill openers.

9412 GRAIN DRILL SPECS

MODEL NUMBER	9412-10	9412-12
Width (m)	10′(3)	12' 6" (3.8)
# Openers 7 1/2" (191 mm) Spacing	16	20
# Openers 10″ (254 mm) Spacing	12	15
Hopper Capacity bu (L)	24 (774)	37.5 (321)
Weight (7 1/2" (191 mm) Spacing) (kg) (10" (254 mm) Spacing) (kg)	3,876 lbs. (1758) 3,326 lbs. (1509)	5,110 lbs. (2318) 4,423 lbs. (2006)
Transport Width (m)	10' 6" (3.2)	13' 5" (4.1)
Transport Pull Hitch (kg)	1,650 lbs. (1748)	1,650 lbs. (748)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances. We are continually striving to improve our machines; therefore, these specifications are subject to change without notice.



9413 GRAIN DRILL

First For Good Reason

Sunflower drills are the first choice with North American farmers for good reason; and the Sunflower Model 9413 grain drill is a good example of their obsession. Whether it's no-till, minimum-till or conventional seeding, the Sunflower 9413 is easily adjusted to do it all. Heavy-duty construction produces the built-in weight and strength to meet the most demanding no-till conditions. Yet, the all-purpose "Heads Up" openers can be quickly adjusted — without tools — for a lighter touch in conventional or minimum tillage applications. Either way, the large seed hopper, which provides 3.75 bushels of seed capacity per foot, keeps you going longer between stops. Available in 15' or 20' seeding widths in 7.5" or 10" row spacings, the 9413 is the ideal model for the producer who needs a serious, rigid-frame grain drill - whether it's used in its standard 3-point-mounted design or with the optional transport pull hitch.





- **1. ALL PURPOSE** "Heads Up" opener no-till, min-till or conventional seeding.
- **2. HEAVY FRAMES** The 7" x 7" x 3/8" main frame and 3" x 5" x 3/8" opener frame tubes are bridged for extraordinary strength.
- **3. LARGE HOPPERS** All-welded, 3.75 bu per foot seed hoppers. The wide lids assist in filling and cleanout.
- **4. WIDE WALK BOARDS** Ladders fold flat and boards lock automatically when lifted to the storage position.

- **5. SEED CUP DIVIDERS** Divider tents enhance the flow of seed flow to the meters.
- **6. DRIVE MECHANISM** Maintenance-free steel sprockets, #50 HD chain, spring-loaded idlers and drive wheels.
- **7. OPTIONAL SHIELDS** Opener shields align and deflect stalk residue to prevent buildup in the drill openers.
- 8. OPTIONAL TRANSPORT HITCH Transport pull hitch (TPH) converts 3-point drills to pull type.







9413 GRAIN DRILL SPECS

MODEL	9413-15	9413-20
Working Width (m)	15' (4.6)	20' (6.1)
Number of Rows @ Row Spacing (mm)	24 rows @ 7.5" (190.5) 18 rows @ 10" (254)	32 rows @ 7.5" (190.5) 24 rows @ 10" (254)
Hopper Capacities	Seed capacity (3.75 bu per ft) (132.15 L. per .3 m)	Seed capacity (3.75 bu per ft) (132.15 L. per .3 m)
Drill Weight (kg) @ Row Spacing (mm)	6,219 lbs. (2820) @ 7.5" (190.5) 5,403 lbs. (2451) @ 10" (254)	8,063 lbs. (3657) @ 7.5" (190.50) 6,963 lbs. (3158) @ 10" (254)
Transport Width (m)	18.1' (5.5)	23′ (7)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.



9421 TWO-SECTION GRAIN DRILL

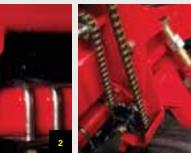
Flexibility In The Field And On The Road

The Sunflower Model 9421 two-section grain drill is the perfect answer for the producer who needs to cover a lot of acres, but needs to frequently move through gates or down narrow or busy roads. Despite planting widths up to 30', the 9421 folds to a transport width of only 13' 11". Since both drill sections fold forward, the operator also has a clear view behind the unit during transport.

The two-section frame also provides plenty of flexibility in the field, thanks to the ability of each wing to flex 11 degrees above and below level. The in-line, three-bushel-per-foot grain boxes facilitate easy seed filling; and, by design, align the openers for superior control, resulting in uniform seed placement. All Sunflower multi-purpose drills also feature a full 8" of front-to-rear stagger between opener units, making the Sunflower 9421 an excellent alternative to a higher-priced split-row planter.









- **1. BIG CAPACITY GRAIN BOXES** Each 16-gauge metal box features seed capacities of 3 bushel per foot. Wide lids facilitate loading and easy cleanout.
- **2. EXTRA HEAVY FRAMES** Heavy-duty 3/8" thick 7" x 7" main frames are coupled to a 3/8" x 3" x 5" opener frame to create a sound foundation for all Sunflower grain drills.
- **3. DRIVE MECHANISM** The seed meter drive features maintenance-free steel sprockets, #50 HD chain, a spring-loaded chain idler and a spring-loaded drive wheel to ensure constant soil contact.
- **4. LOW PROFILE SEED BOXES** Low profile boxes and a narrow 13' 11" transport width aid in transporting the 9421 between fields and down roads. As per design, the tractor operator is able to view directly behind the folded 9421 during transport. Blind spots are minimized, and backing up is an easy individual task.
- **5. SEED BOX SIGHT GLASS** All seed boxes feature a clear sight glass at each end of the grain box to view seed level from the tractor seat.
- **6. FLEXIBILITY** Two-section forward-fold wing frames flex 11° up and 11° down.

- **7. 8**" **OPENER STAGGER** Allows crop residue to flow through the openers and not gather within. All Sunflower grain drills feature a full 8" of front-to-rear opener stagger that allows crop residue to flow through the openers without bunching or gathering.
- **8. QUICK MANUAL ADJUSTMENTS** Simple, easy seed meter adjustments can be performed by turning a single star nut, which sets all connected meters at the same time, to the same rate.
- **9. OPTIONAL OPENER SHIELD ASSEMBLIES** Align and deflect stalk residue to prevent buildup in the drill openers.
- **10. OSCILLATING TRANSPORT WHEELS** The transport wheels automatically unlock from the main frame when turning to follow the arc of the turn so as not to push or drag soil, which would create a ridge.

9421 GRAIN DRILL SPECS

MODEL	9421-20	9421-25	9421-30
Width (m)	20' (6.1)	25′ (7.6)	30' (9.1)
# Openers 7 1/2" (191 mm) Spacing	32	40	48
# Openers 10" (254 mm) Spacing	24	30	36
Hopper Capacity bu (L) (3 bu. per ft) (106 L per .3 m)	60 (2114)	75 (2643)	90 (3172)
Weight (7 1/2" (191 mm) Spacing) (kg) (10" (254 mm) Spacing) (kg)	11,300 lbs. (5126) 10,200 lbs. (4627)	14,041 lbs. (6369) 12,666 lbs. (5745)	17,479 lbs. (7928) 15,829 lbs. (7180)
Transport Width (m)	13' 11" (4.3)	13' 11" (4.3)	13' 11" (4.3)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.



9435 THREE-SECTION GRAIN DRILL

The New Standard In Flexible Seeding

Since the 1960s, Sunflower has been renowned for its flexible tillage tools. Today, the company has the same reputation for grain drills — like the Model 9435 with its unique frame design that delivers unmatched flexibility and seeding performance in all field conditions. We started with a staggered grain box design that eliminates all box contact as the machine flexes over and through field contours. Straight end-walls also ensure equal amounts of seed over all meters. In the meantime, end wheels positioned in-line with openers ensure precise seed depth control even on rough terrain and no-till fields.

Available in 30' and 40' sizes with either 7 1/2" or 10" spacing, the 9435 can be tailored to virtually any operation, making it your single source for conventional seeding right through no-till.













- **1. END WHEEL DESIGN** End wheels are positioned in-line with openers for precise seed depth control, even on rough terrain and no-till fields.
- **2. EXTRA HEAVY FRAMES** The 7" x 7" x 3/8" main frame tube contains an additional 6" x 6" x 1/2" tube for increased weight for tough no-till conditions.
- **3. DRIVE MECHANISM** The seed meter drive features maintenance-free steel sprockets, #50 HD chain, a spring-loaded chain idler and a spring-loaded drive wheel to ensure constant soil contact.
- **4. COMPOUND ANGLE WING HINGES** Produce exceptional wing lift when folded for transport. The openers on the wings have over 16" of transport clearance.
- **5. H.D. LIFT ASSEMBLY** Two 4" x 16" vertical lift and two 3.5" x 16" horizontal lift cylinders and four 3" spindles with 8-bolt hubs and wheels.
- **6. 8**" **OPENER STAGGER** Allows crop residue to flow through the openers and not gather within. All Sunflower grain drills feature a full 8" of front-torear opener stagger that allows crop residue to flow through the openers without bunching or gathering.
- **7. DRAWBAR HITCH** Tongue height is adjusted hydraulically. The clevis pivots to follow terrain.

- **8. THE THREE AXIS HITCH** Mounts to the lower two points of your 3-point hitch. This allows greater flexibility between the tractor and drill on rough terrain and improves the handling of heavily loaded seed boxes compared to overloading a draw bar.
- **9. OPTIONAL OPENER SHIELD ASSEMBLIES** Align and deflect stalk residue to prevent buildup in the drill openers.
- **10. LARGE-CAPACITY GRAIN BOXES** Constructed of 16-gauge metal. 3.75 bushels per foot seed capacity means more acres seeded between fills.

9435 GRAIN DRILL SPECS

MODEL	9435-30	9435-40
Width (m)	30' (9.1)	40' (12.2)
# Openers 7 1/2" (191 mm) Spacing	48	64
# Openers 10" (254 mm) Spacing	36	48
Hopper Capacity bu (L) (3.75 bu per ft) (132 L per .3m)	112 (3947)	150 (5286)
Weight (7 1/2" (191 mm) Spacing) (kg)	19,917 lbs. (9034)	24,536 lbs. (11130)
(10" (254 mm) Spacing) (kg)	18,267 lbs. (8286)	22,336 lbs. (10132)
Transport Width (m)	13' 11" (4.3)	13' 11" (4.3)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances. We are continually striving to improve our machines; therefore, these specifications are subject to change without notice.



9510 FERTILIZER/ GRAIN DRILL

The Best Of Both Worlds

Sunflower offers the best of both worlds in the Model 9510 grain drill — capacity and versatility. Equipped with a divided hopper that holds 2.4 bushels of seed and 120 pounds of dry fertilizer per foot, the 9510 provides the operator with the ability to apply fertilizer during planting. Or convert the hopper to an all-seed mode for 3.75 bushels per foot, which translates into more time in the field and less time filling. Choose from two different models in 15-foot and 20-foot drilling widths and a choice of 7.5- or 10-inch row spacings. All four configurations feature the Sunflower Heads-Up opener assembly for superior seed placement that promises a new level of flexibility in all field conditions. Combining the ground hugging frame design of 9400 series drill and the dual role ability of seed and fertilizer, the Sunflower 9510 is the standard-setter in seeding efficiency!



9510 GRAIN DRILL



- **1. DUAL ROLE** Divided hopper holds 2.4 bushel per foot of seed and 120 lbs. per foot of dry fertilizer.
- CONVERTIBLE HOPPERS No tools are needed to convert the hoppers to all-seed with 3.75 bushel per foot capacity.
- **3. SINGLE SHOOT DELIVERY** Seed and fertilizer combine in a single shoot delivery system to the "Heads Up" opener.
- **4. SIMPLICITY** Fast and easy fertilizer rate and drive adjustments.

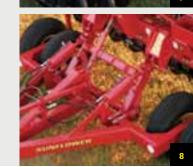
9510 GRAIN DRILL SPECS

MODEL 9510-15 9510-20 Working Width (m) 15' (4.6) 20' (6.1) Number of Rows 24 rows @ 7.5" (190.5) 32 rows @ 7.5" (190.5) @ Row Spacing (mm) 18 rows @ 10" (254) 24 rows @ 10" (254) Seed capacity (2.4 bu. per ft.) (84.57 L. per 0.3 m.) Seed capacity (2.4 bu. per ft.) (84.57 L. per 0.3 m.) **Hopper Material** Fertilizer capacity (120 lb. per ft.) (54.43 kg. per 0.3 m.) Fertilizer capacity (120 lb. per ft.) (54.43 kg. per 0.3 m.) Capacities Seed capacity (3.75 bu. per ft.) (132.15 L. per 0.3 m.) Seed capacity (3.75 bu. per ft.) (132.15 L. per 0.3 m.) Drill Weight (kg) 6,630 lbs. (3007) @ 7.5" (190.5) 8,652 lbs. (3007) @ 7.5" (190.5) @ Row Spacing (mm) 5,418 lbs. (2458) @ 10" (254) 7.552 lbs. (2458) @ 10" (254) Transport Width (m) 18.1' (5.52) 23' (7)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.

- ALL-PURPOSE OPENER "Heads Up" opener provides no-till, min-till or conventional seeding.
- **6. HEAVY FRAMES** The 7" x 7" x 3/8" main tube is joined after every fourth opener to the 3" x 5" x 3/8" opener frame.
- **7. WIDE WALK BOARDS** Ladders fold flat and boards lock automatically when lifted to the storage position.
- **8. OPTIONAL** Transport pull hitch (TPH) converts 3-point drills to pull type.





9531 FERTILIZER/ GRAIN DRILL

Seed And Feed Large Acreage

For large-acreage seed-and-feed capabilities, look no further than the Sunflower Model 9531. Like the smaller 9510, it features a divided hopper that holds 2.4 bushels of seed and 120 pounds of dry fertilizer per foot for the application of fertilizer during planting. Or, the hopper can be converted to an all-seed mode for up to 150 bushels of capacity (40-foot model).

Choose from two different models in 30-foot and 40-foot drilling widths and a choice of 7.5- or 10-inch row spacings. All four configurations feature the staggered grain box found on the 9435 three-section drill, as well as the superior performance of our Heads-Up opener assemblies.









- **1. DUAL-ROLE DIVIDED HOPPER** Holds 2.4 bushel per foot of seed and 120 lbs. per foot of dry fertilizer.
- **2. CONVERTIBLE HOPPERS** No tools are needed to convert the hoppers to seed only with 3.75 bushel per foot capacity.
- **3. SINGLE SHOOT DELIVERY** Seed and fertilizer combine in a single shoot delivery system to the "Heads Up" Opener.
- **4. EXTRA HEAVY FRAMES** The 7" x 7" x 3/8" main frame tube contains an additional 6" x 6" x 1/2" tube for increased weight for tough no-till conditions.
- **5. H.D. LIFT ASSEMBLY** Two 4" x 16" vertical lift and two 3.5" x 16" horizontal lift cylinders and four 3" spindles with 8-bolt hubs and wheels.

- **6. UHMW MATERIAL** Service-free Ultra High Molecular Weight material used in all wheel lift locations.
- **7. FAST RATE CHANGE** Easy and fast fertilizer drive adjustments.
- 8. ALL-PURPOSE OPENERS "Heads Up" openers provide no-till, min-till or conventional seeding.

9531 GRAIN DRILL SPECS

- 9. OPTIONAL OPENER SHIELD ASSEMBLIES - Align and deflect stalk residue to prevent buildup in the drill openers.
- **10. WIDE WALK BOARDS** Ladders fold flat and boards lock automatically when lifted to the storage position.

MODEL	9531-30	9531-40
Width (m)	30' (9.1)	40' (12.2)
# Openers 7 1/2" (191 mm) Spacing	48	64
# Openers 10″ (254 mm) Spacing	36	48
Hopper Capacity bu (L) (2.4 bu per ft) (85 L per .3 m) (3.75 bu per ft) (132 L per .3 m)	72 (2537) 112.5 (3947)	96 (3383) 150 (5286)
Weight (7 1/2" (191 mm) Spacing) (kg) (10" (254 mm) Spacing) (kg)	21,059 lbs. (9552) 19,409 lbs. (8804)	25,679 lbs. (11648) 23,479 lbs. (10650)
Transport Width (m)	13' 11" (4.3)	13' 11" (4.3)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances. We are continually striving to improve our machines; therefore, these specifications are subject to change without notice.



9000 GRAIN DRILL ALL-PURPOSE "HEADS UP" OPENER

The all-purpose "Heads Up" opener design gently delivers the seed to its final resting place while providing longer bearing and blade life. Available on all Sunflower 9000 Series grain drills, the "Heads Up" opener design eliminates pairing of rows, premature leading blade wear, side loading of bearings while improving soil penetration. The new all-purpose "Heads Up" opener addresses seeding placement problems and delivers the seed to the center of the trench placing it in position for optimum growth and higher yields. **Sunflower really is Seeding Quality.**

> Shown without patented "soil control devices"

Mounts to $5'' \times 3'' \times 3/8''$ thick frame with 5/8'' HD L-bolts.

No tools needed to make down pressure adjustment changes. Two 400 lbs. retention springs are able to generate up to 410 lbs. <u>at the opener blade pinch</u> <u>point.</u> The row unit itself weighs 132 lbs.

1/2" parallel links for better depth control.The press wheel and opener blades stay consistent during travel up or down.

Trash deflector keeps residue from entering -----. seed trench through front of openers.

Nitro-Tech coated

bushing in each pivot point.

205 Bearing on each blade.

 Exclusive Sunflower soil controlling devices minimize soil blow out from opener blades, both in no-till or conventional seedbeds. Soil controlling devices are made of Ultra High Molecular Weight (UHMW) polymer for prolonged life. UHMW is backed by spring steel to guard against bending.

Soil is thrown from seed trench onto already planted seed. Results are uneven emergence and lost yields.

Soil is directed back into seed trench and firmed by press wheels. Results are even emergence and improved yields.

Shown with patented "soil control devices"

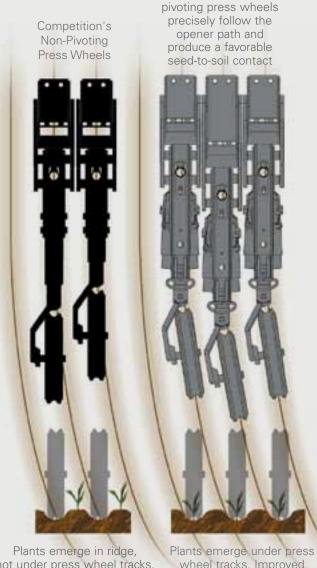
The Sunflower

Easy depth setting. Each notch is 1/4" in depth. No tools needed for adjustments.

Only one grease zerk per opener.

 Swivel type press wheels reduce opener side loading during turns or while following contours. Pivoting press wheels will follow the opener trench and provide down pressure directly over the seed.





Plants emerge in ridge, not under press wheel tracks. Poor and late emergence are the results. Plants emerge under press wheel tracks. Improved emergence and enhanced yields are the results.

15" diameter, 3.5 mm thick opener blades

9610 3-POINT DRILL

A Conventional Drill With Unconventional Versatility.

Designed for producers who need a conventional or minimum tillage drill with plenty of capacity and versatility, the new Sunflower 9610 3-Point Grain Drill offers a choice of 15' and 20' planting widths in width choices of 6", 7 1/2" and 10". Productivity starts with a pair of the largest seed hoppers in the industry, which offer a capacity of three bushels per foot. That translates into 60 acres without refilling, when using the 20-foot model at a seeding rate of one bushel of seed per acre.

However, the 9610 is also equally versatile. Standard-equipment pneumatic down pressure on each row, for example, ensures quick response to changing soil conditions. The 9610 is also available with a legume/grass seeder and/or native grass seeding attachment (except 6" spacing) for even broader seeding capabilities.

The bolt-in hopper bottom even allows multiple row spacing using the same hopper, while "alfalfa reducer" inserts assure greater accuracy when planting small hard seeds like alfalfa, canola and clover.

Regardless of the crop and row width, you can count on the accuracy you've come to expect from Sunflower's innovative All Purpose Row Unit, which has already been field proven on a number of other Sunflower models.



9610 3-POINT DRILL



- **1. FRAME** The 7" x 7" x 3/8" Mainframe Tube, which is joined after every fifth opener contributes greatly to the stability of the frame and withstands the rotational forces generated by the openers.
- **2. TRANSPORT PULL HITCH** Converts the 3-Point grain drill to pull type and allows the use of smaller horsepower tractors to handle larger drills.
- **3. OPENERS** Single Arm Mount Conventional Openers are mounted at an 8" stagger to promote residue flow through the seeding system. The single point mount bearings are also protected by UHMW bearings to prevent wear and reduce service time.
- **4. PNEUMATIC DOWN PRESSURE** Maintains an even down force on all row units and eliminates the down-pressure spikes that occur with spring activated down pressure systems.

9610 3-POINT DRILL SPECS

MODEL	9610-15	9610-20
Width (m)	15' (4.6)	20' (6.1)
Number of Rows @ Row Spacing (mm)	30 rows @ 6" (152.4) 24 rows @ 7.5" (190.5) 18 rows @ 10" (254)	40 rows @ 6" (152.4) 32 rows @ 75" (190.5) 24 rows @ 10" (254)
Seed Capacity	(3.0 bu. per ft.) (106 L. per 0.3 m.)	(3.0 bu. per ft.) (106 L. per 0.3 m.)
Weight (6" (152.4 mm) Spacing) (kg) (7 1/2" (191 mm) Spacing) (kg) (10" (254 mm) Spacing) (kg)	5,859 lbs. (2657) 5,268 lbs. (2389) 4,662 lbs. (2114)	7,539 lbs. (3419) 6,741 lbs. (3058) 5,942 lbs. (2695)
Transport Width (m)	17'-1" (5.2)	21'-3" (6.5)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.

9920/9930 AIR CART

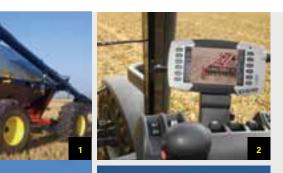
Strength, versatility and simplicity in three options

Built to Sunflower's high quality and reliability standards, the Sunflower 9900 Air Car is the perfect complement to the 9800 Single Disc Air Drill. Fact is, the combination not only creates the industry's most accurate seeding machine, but it provides the versatility to efficiently meet the needs of virtually any farming practice.

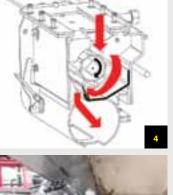
Choose the single-axle with duals Model 9930 for a total capacity of 525 bushels in three tanks — 175 in the front, 225 in the center and 125 in the rear. The 9930 can also be set up for tow-between or tow-behind configuration.

Or take your choice of two versions of the two-axle Model 9920, for exceptional tow-behind performance. The 9920-335 has a 200-bushel tank in the front and a 135-bushel tank in the rear, while the 9920-280 has a 168-bushel tank in the front and a 112-bushel tank in the rear. All three models feature stainless steel commodity tanks for even more versatility and value on your investment.











- VERSATILE LOAD AND UNLOAD AUGER An 8" auger on 9920 models and a 10" auger on 9930 models allows quick and easy loading and unloading. Both augers are double hinged for exceptional balance, allowing one-man loading and unloading; and both feature hydraulic drive powered by oil from the blower hydraulics.
- **2. ISOBUS COMPLIANT** ISOBUS compliance, which meets ISO 11783 standards, allows the 9900 Air Cart to be controlled and monitored with any ISOBUS-compatible virtual terminal, including those built into most late model tractors. It also provides compatibility with all mapping and variable-rate seeding technologies.
- **3. BUILT-IN SAFETY FEATURES** Grab handles at every climbing point, combined with tread plate platforms, ensure safe footing and operator safety when accessing elevated areas of the cart. Side rails, which can be lowered for storage if necessary, even include double horizontal bars to protect the operator in standing or kneeling positions.

9920 & 9930 AIR CART SPECS

- 4. FOUR DIFFERENT ROLL OPTIONS A choice of four meter roll options — all constructed of stainless steel for lifetime performance — is available to meet your specific cropping program. Equipped with eight 1/2" deep bars, the high-capacity roll is suitable for most applications. The medium-capacity roll has twelve 1/4" deep bars and is used on smaller machines or for consistently lower seeding or fertilizing rates. Finally, the low-volume roll is ideally suited for sunflowers, while the canola roll has a pattern of shallow depressions for very low seeding rates.
- 5. GROUND-DRIVE OR VARIABLE-RATE METERS Choose between ground-drive and variable-rate hydraulic drive on all models. A magnetic clutch on ground-drive models permits automatic disengagement and engagement when the drill is raised and lowered, while the electricover-hydraulic technology on the variable-rate drive system allows the operator to control the meter speed independent of ground speed. The variable-rate drive also provides the potential to apply product to a prescription map using GPS.

MODEL	9920-280	9920-335	9930-525
Working Height (m)	12.67′ (3.9)	13.33' (4.1)	17.0' (5.2)
Working Width (m)	11.42' (3.5)	11.42' (3.5)	16.50' (4.9)
Working Length (m)	27.00' (8.2)	27.00' (8.2)	30.17' (9.5)
Weight Empty (est.) (kg)	8,500 lbs. (3856)	8,750 lbs. (3946)	15,750 lbs (7144)
Fill Height (m)	11.17′ (3.4)	11.67′ (3.6)	11.75′ (3.6)
Shipping Height (m)	9.50' (2.9)	10.17' (3.1)	10.42' (3.2)
Width (m)	8.33′ (2.5)	8.33' (2.5)	7.50′ (2.3)
Length (m)	19.17' (5.8)	19.17' (5.8)	28.25' (8.6)

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.

9830/9850 SINGLE DISC DRILL

The Newest Drill Technology In Two Decades

Some have already referred to the Sunflower 9800 Single Disc Drill as a "speed drill" due to its unique ability to seed at a higher speed —without creating uneven seed rows — than any competitive model on the market. However, you may just want to call it "extremely versatile."

Whether you run it fast or slow; in no-till, minimum-till or conventional till; flat ground or on a slope, the Sunflower 9800 works well in all conditions.

Hydraulic down pressure on the openers, which is adjustable on the go from the tractor cab, eliminates the need to adjust springs or individual row openers. Thanks to the 9800 Single Disc Drill's patented design, we've also eliminated the need for a gauge wheel running next to the disc. This allows the "opposing single discs" to lift and displace the soil between the two narrow 6" rows. The loosened soil coming off of the twin discs, flows back against the trailing packer wheels, which re-level and firm the soil over the seed rows. This soil displacement process eliminates sidewall compaction, hair pinning and open seed furrows, while leaving a 6" blackened strip to encourage soil warming.

Available in seeding widths from 30' to 50', the 9800 is the one air drill that will provide maximum productivity in any environment.





- **1. HEAVY-DUTY FRAME** Like all Sunflower machines, the 9800 features an all-welded, box-beam frame for maximum durability and the necessary weight to operate in any soil and residue condition. Both front and rear beams on the mainframe measure 6" x 8", while tubing throughout the frame features 1/2" walls.
- 2. STANDARD WALKING TANDEMS Walking tandem axles, which offset each set of support wheels, are standard on the main frame and all large wings to minimize uneven penetration, while providing the necessary support and flotation in the field and on the road.
- **3. HYDRAULIC DOWN PRESSURE** Hydraulic down pressure, which is controlled by hydraulic cylinders connected in a parallel circuit, ensures uniform down force across the full width of the drill, as well as through the entire range of motion of the tool bars. An active hydraulic circuit, operated though a cab-mounted control, allows the operator to change the down pressure on the go to match widely changing conditions in the field.
- **4. EASY FRAME LEVELING** Screws on each wing frame section allow the operator to raise or lower each wing section to attain uniform seeding depth across the full width of the unit. Re-phasing lift cylinders ensure that the drill maintains level when raising and lowering the frame.

9830 & 9850 GRAIN DRILL SPECS

MODEL	9830-30	9830-40	9830-50
Sections	3	3	5
# Seed Openers	48	64	80
Row Spacing	6-9 (15-23) Paired Row	6-9 (15-23) Paired Row	6-9 (15-23) Paired Row
Working Width (m)	30' (9.1)	40' (12.2)	50' (15.2)
Transport Width (m)	14' 3" (4.3)	18′ 11″ (5.8)	21' 6" (15.2)
Transport Height (m)	14' - 15.5' (4.4 - 4.7)	16' - 17.83' (5.1 - 5.4)	13.5' - 15.33' (4.1 - 4.7)
Weight Empty (est.) (kg)	21,200 lbs. (9616)	26,500 lbs. (12020)	39,000 lbs. (17690)
Tractor Requirement	210-260 hp	250-320 hp	300-360 hp

Note: Above specifications may vary slightly based on tires, hydraulic system, or other possible variances.

"Sunflower tackles the good and bad side of sandy soil."

Western Nebraska is generally known for wheat and cattle production. However, for Shannon Malmkar, who farms nearly 4,000 acres near the small town of Madrid, it's the perfect environment for corn and edible beans under irrigation — including nearly 1,100 acres of popcorn.

"Edible beans really like the sand, because you don't experience anywhere near the disease problems you would in wet ground, simply because any excess water drains off so quickly," he explains. "Unfortunately, the very thing that makes the area ideal for growing edible beans is the very same thing that causes us headaches the following spring. When you get done harvesting edible beans, there's not much residue left to protect the soil from wind erosion. Plus, that sand can really do some damage on corn seedlings if it starts blowing."

That's one reason Malmkar uses a 40' Sunflower 9435 grain drill to plant a cover crop of rye following edible bean harvest. The following spring, when it's time to plant corn, he simply goes back in with Roundup to kill the rye, strip tills for 30" rows and plants the next crop.

"The drill technically belongs to my brother, Jarret," he says, noting that the two used to farm together and have only recently divided assets as their families have grown. "We still do a lot of farming together and often trade equipment, though.

"Jarret originally bought the Sunflower when we were both growing sunflowers and soybeans," Shannon continues. "Plus, we used to use it to plant wheat on the pivot corners."

Ironically, as the price of corn has gone up, the brothers have found that planting the entire field to corn and managing the corners as dryland corn is now more profitable than planting wheat.

"We're not growing sunflowers

anymore and we don't have any soybeans or wheat, so I guess we're down to just using the drill for cover crops," he relates. "Still, that amounts to about 1,000 acres every year, just on my part of the farm.

"The thing I like best about the Sunflower drill is its versatility," Malmkar continues. "It will go through just about anything you want to plant into. I also like the way it flexes to follow the contours," he adds, noting that the staggered grain box design on the three-section 9435 further adds to the agility. "We have a lot of hills and valleys in some of our fields; yet, it still hugs the ground.

"Who knows ... if corn prices go back down, we may be back to wheat on the corners and use the drill for more than just rye," he concludes. "From past experience, we already know it does an excellent job with sunflowers, soybeans and small grains."

GROWER Shannon Malmkar

LOCATION Madrid, Nebraska

SITUATION Potential wind erosion from blowing sand

SOIL CONDITION Fall-seeded cover crop of rye

TILLAGE TOOL USED Sunflower 9435 Three-Section Grain Drill





GRAIN DRILLS

9312 | 9412 | 9413 | 9421 | 9435 | 9510 | 9531 | 9610 | 9830 | 9850 | 9920 | 9930

SUNFLOWER. THE ULTIMATE ANSWER.

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