MONOSEN

The precision Planter specialist



Twin-Row Sync-Row® pneumatic planter

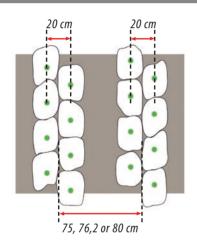
TWIN-ROW SYNC-ROW® CONCEPT

Developed by the American MONOSEM subsidiary in 1992 and commercialized for nearly 20 years, this method is based on two-line staggered planting.

Used at first for peanut seeds, the Twin-Row Sync-Row® was then developed for other crops such as cotton and soya, and became of interest more recently to maize growers.



PRINCIPLE OF TWIN-ROW SYNC-ROW® PLANTING



The crop is planted on two lines 20 cm apart instead of on one line with inter row spacings of 75 cm, 76,2 cm or 80 cm.



Harvesting is made with conventional equipment. Another advantage: as the overall inter row spacing is not modified, the tractor treads remain unchanged.

By a better positioning of the seeds, the Twin-Row Sync-Row increases the seed population with less competition and more growing room and thus increasing the yields.

RESULTS

Several university research surveys carried out in the United States have shown signicative yield increases with the Twin-Row compared to single row planting. This **increase in performance** is explained by a **better root growth** together with a **better photosynthesis**; the plants have more growing room. Furthermore, a quicker canopy leads to less weeds and the humidity in the soil is conserved.

Tests made together with DEKALB in France since 2010 confirm a **yield increase with Twin-Row Sync-Row**® and show that **the varieties react differently according to the type of planting**. The choice of hybrids will be very important for success with the maize seed with Twin-Row Sync-Row®.

This type of planting should also interest sunflower, sorghum or rape producers. For the moment, the yield increases for these crops has not been tested in France and in Europe.









THE TWIN-ROW SYNC-ROW® FEATURES

The patented Sync-Row® system synchronizes the 2 metering systems and ensures perfect staggering between the seeds.



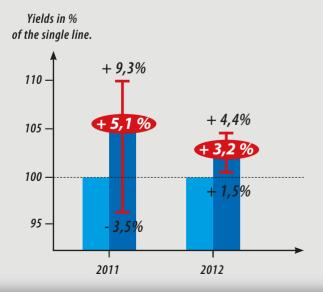




The planting of each double line is ensured by 2 independent metering units for optimal planting.

The lateral seed spacing gearbox enables easy access for adjusting the seed population.

The Twin-Row planters are equipped with front wheel units for clearance between the metering units.



Single line

Twin-Row Sync-Row®

T Hybrid effect

:.. 2011.

Average gain with Twin-Row Sync-Row® in 2011:

+5,1% (from -3,5% to +9,3% according to the varieties)

Average gain with Twin-Row Sync-Row® in 2012:

+3,2% (from +1,5% to +4,4% according to the varieties)

Source:

Trials carried out in partnership with Dekalb in France in 2011 and 2012. Comparison Single line planting (conventional seed population) and Twin-Row Sync-Row® planting (seed population +20%).

Basis of 7 varieties tested in 2011 and 2012 in different regions of France.

TECHNICAL FEATURES

PLANTER TYPE MONOSHOX® NG PLUS M - TWIN-ROW SYNC-ROW®

Frames	Rigid			Folding
	Mono	bloc2	Triple-bar	Double-bar TOP 7»
Width	3 m 00	4 m 50	6 m 00	6 m 00
Transport width	3 m 00	4 m 50	6 m 00	3 m 50
Inter-row spacings (cm)	75 76,2	75 76,2	75 76,2	75 76,2
(cm)	80	80	80	80
Number of rows	4	6	8	8
Number of metering units	8	12	16	16
Turbofan	Drive by PTO — 540 rpm in standard version, 450 or 1000 rpm on option. Hydraulic drive on option, Universal joint on option.			
Tyres	2 x (26 x 12)	4 x (6,5 x 80 x 15)	6 x (6,5 x 80 x 15)	6 x (6,5 x 80 x 15)
Seed spacing gearbox	1	2	2	3
(Number - Type)	Lateral	Lateral	Lateral	Lateral
Hydraulic row markers	•	•	•	•
Fertilizer	○ Standard front-mounted	○ Standard front-mounted	○ front-mounted DUO	O front-mounted DUO
Microsem	О	0	О	О
Hectare counter	0	0	0	О
Seed monitor	0	0	0	О
Lighting kit	О	0	0	О



• : Standard equipment

O: On option

For other models and other crops, please consult us.



Multi-purpose pneumatic Monoshox® NG Plus M planter with discs

Multi-purpose pneumatic NG Plus 4 planter with discs

« low-till » planter NX 2 with discs

Multi-purpose pneumatic planter with NC shoes

Special vegetable planter for mini-seeds MS

Mechanical planter for pelleted sugarbeet MECA V4 Cultivator

MONOSEN

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Distributor

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All the data concerning the equipment, the general appearance, the weight and dimensions are current at the date of printing and vary according to countries. They may be modified without previous notice. This brochure cannot be considered as a binding document. Your Monosem partner will not hesitate in informing you of any possible changes. In order to illustrate this brochure, certain safety housings and mechanisms may have been removed. Apart from this particular case and complying with the recommendations in the manual, these must remain fitted.

Réf. 90150EN - 09/14