

PLANTER ATTACHMENTS

CLOSING WHEEL SYSTEMS



WHY WOULD I NEED A CLOSING WHEEL SYSTEM?

Closing wheels need to maintain consistent pitch and ground contact to successfully close the furrow. Standard swing arms have limited travel, so when they move up, the pitch of the closing wheels gets wider. Likewise, when they move down, they can struggle to close as they were designed. The parallel arms with 4 Link Closer allow for greater travel to maintain a consistent pitch and, thus, more consistent closing of the seed trench. FasTrac™ utilizes a chevron closing wheel system to help manage the soil density in the seed trench and eliminate open seed slots.

CLOSING WHEEL	SCHAFFERT 4 LINK CLOSER		SCHAFFERT 4 LINK CLOSER WITH WALKING AXLE		NEW 2020	
					FASTTRAC™	
CROP						
PFR PROVEN BU./A. ADVANTAGE	1.2 Bu./A.	1.4 Bu./A.	4.3 Bu./A.	1.1 Bu./A.	2.4 Bu./A.	1.0 Bu./A.
WEIGHT	23 lb.		29 lb.		55 lb.	
COST/ROW UNIT	\$550 - \$650		\$655 - \$755		\$595	
TILLAGE SYSTEM	Any		Any		Any	
YEARS TESTED	3		3		3	
COMPANY	Schaffert		Schaffert		AgFocus LLC.	



Most of our plots are located on uniform, flat ground. We would expect the benefits of these systems to be more pronounced in fields that have more rolling topography.

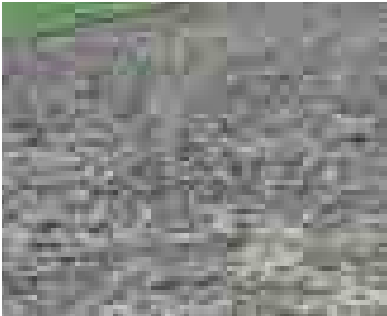
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CLOSING WHEEL SYSTEMS

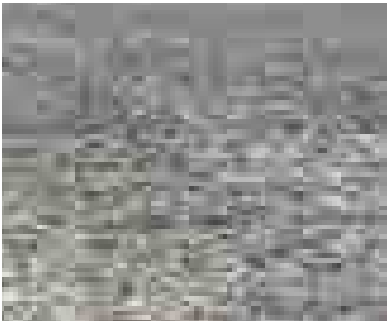


WHY SHOULD I ADD THE WALKING AXLE?

If you have had issues with root balls and other obstructions lifting or impacting closing wheels, then you should consider this attachment. The walking axle creates a “walking” motion of the closing system, allowing the unit to travel more smoothly when dealing with obstructions and increased changes in the soil surface. In addition, as high-speed planting becomes more popular, row unit bounce becomes more pronounced. Having the ability to keep the closing wheels stable and running at a consistent pitch will be more important.

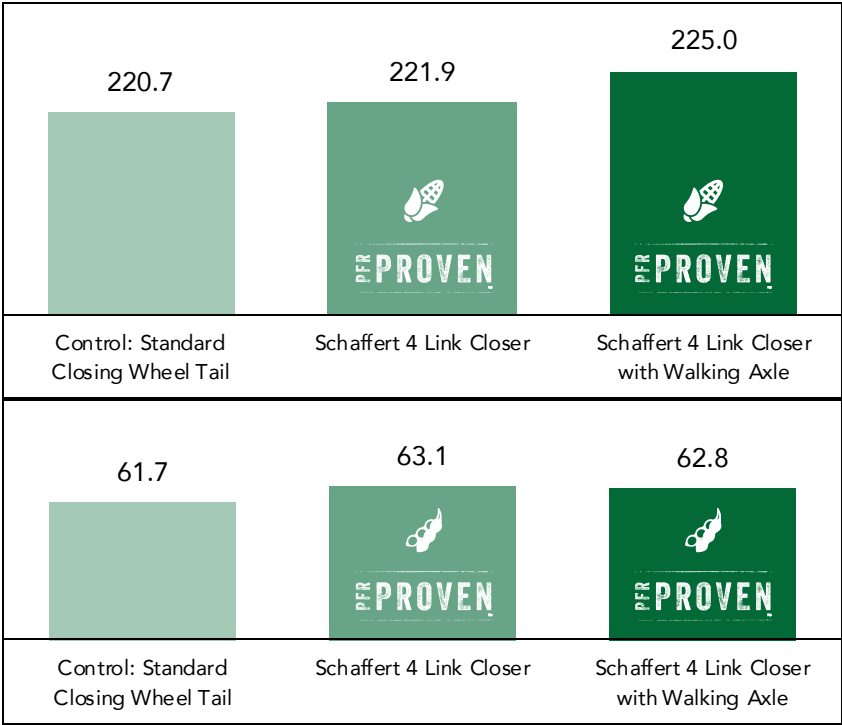


SHAFFERT 4 LINK CLOSER
WITH WALKING AXLE

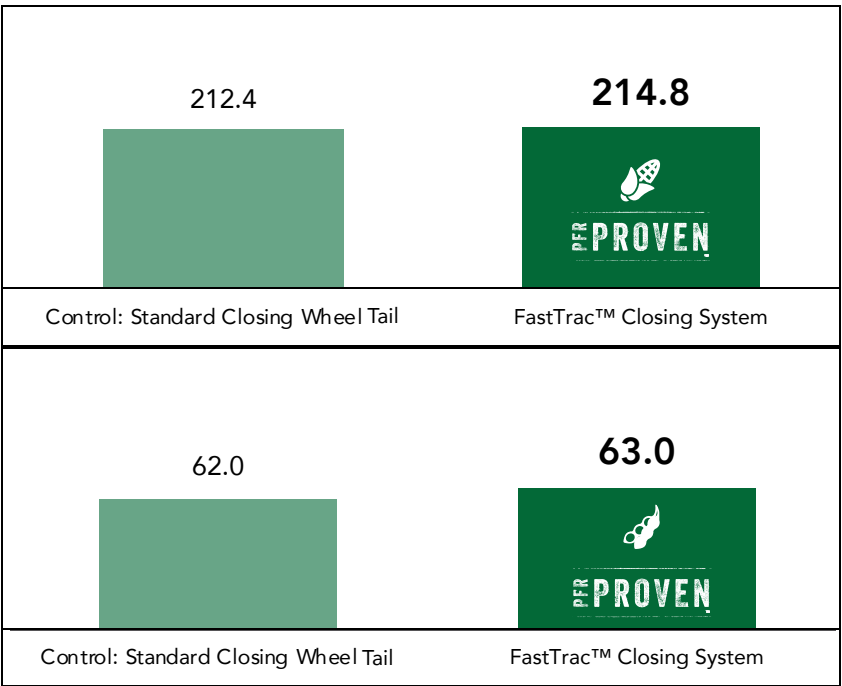


STANDARD CLOSING WHEEL TAIL

3-YEAR MULTI-LOCATION CLOSING WHEEL SYSTEMS YIELD AVERAGE



3-YEAR MULTI-LOCATION CLOSING WHEEL SYSTEMS YIELD AVERAGE



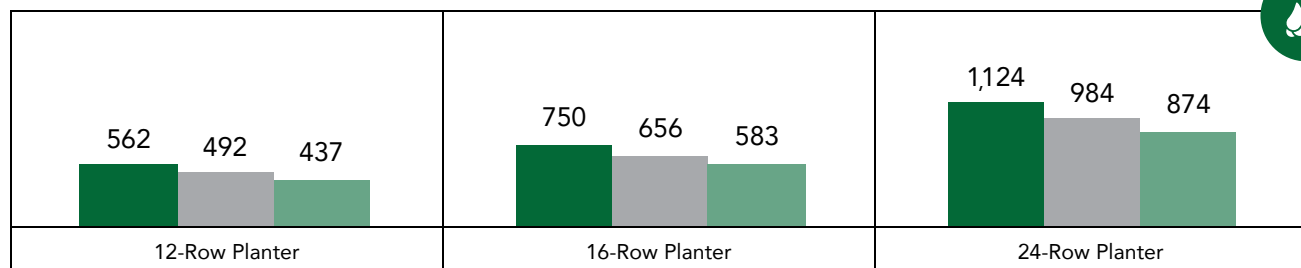
PLANTER ATTACHMENTS

CLOSING WHEEL SYSTEMS ACRES TO PAY OFF

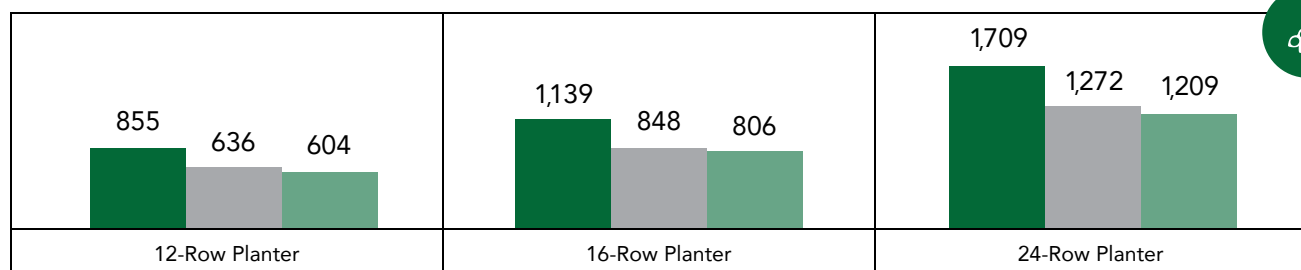
PFR PROVEN

Acres to pay off uses the price of the specific closing wheel, the corn or soybean price, and the Bu./A. advantage for each closing wheel system. In the charts below, a smaller number means the closing wheel system "pays for itself" more quickly.

SCHAFFERT 4 LINK CLOSER WITH WALKING AXLE

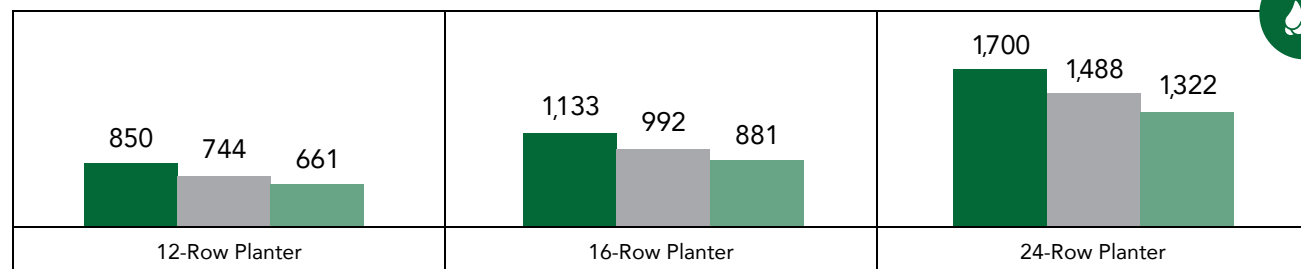


Corn Prices: ■ \$3.50/Bu. ■ \$4.00/Bu. ■ \$4.50/Bu.

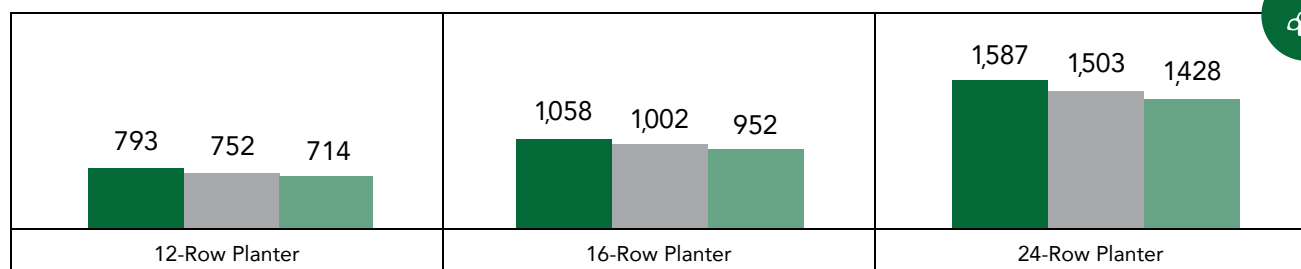


Soybean Prices: ■ \$9.00/Bu. ■ \$9.50/Bu. ■ \$10.00/Bu.

FASTTRAC™ CLOSING SYSTEM ACRES TO PAY OFF



Corn Prices: ■ \$3.50/Bu. ■ \$4.00/Bu. ■ \$4.50/Bu.



Soybean Prices: ■ \$9.00/Bu. ■ \$9.50/Bu. ■ \$10.00/Bu.



CLOSING WHEEL STUDY

HIGH SPEED

PURPOSE

To determine what effect different closing wheels have on plant emergence and yield. Normal planting conditions were targeted in this study.

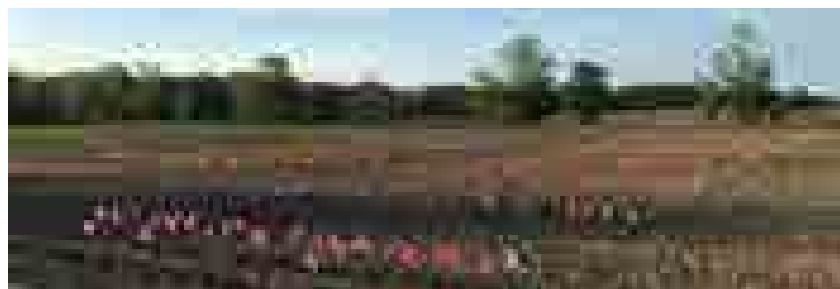


Even at high speeds, our two year data shows the value of the PFR Proven™ Yetter Poly Twisters and the Schaffert 4 Link Closer with walking axle. The 4 Link Closer works well at higher speeds because the spring is independent of the row unit. Poly Twisters work because they are not too aggressive.

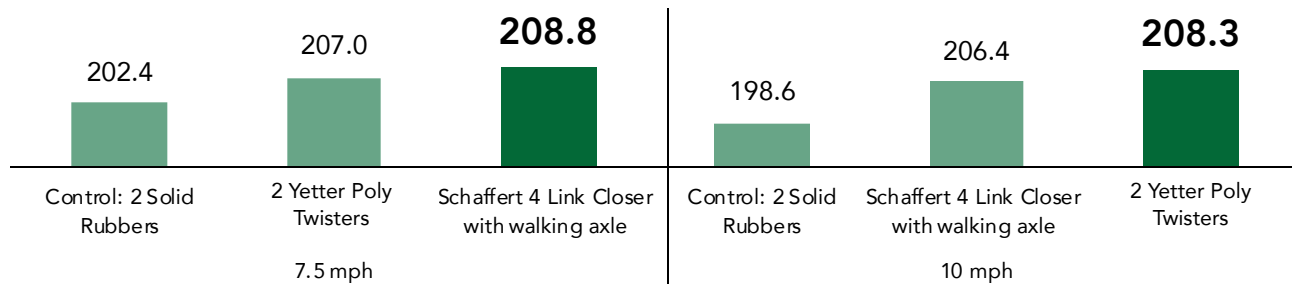
2020 RESULTS

PLANTING SPEED (MPH)	CLOSING WHEELS	EMERGED POPULATION	POPULATION DIFFERENCE	BU./A.	BU./A. DIFFERENCE
7.5	Control: 2 Solid Rubbers	33,667	--	204.0	--
	Schaffert 4 Link Closer with walking axle	33,222	-445	214.0	+10.0
	2 Yetter Poly Twisters	33,834	+167	210.9	+6.9
	Fully Automated FurrowForce™	33,334	-333	209.0	+5.0
10	Control: 2 Solid Rubbers	33,222	--	208.8	--
	Schaffert 4 Link Closer with walking axle	32,333	-889	214.7	+5.9
	2 Yetter Poly Twisters	33,556	+334	212.7	+3.9
	Fully Automated FurrowForce™	32,778	-444	210.2	+1.4

These results are based on the disclosed study parameters and participating sites.



2-YEAR CLOSING WHEEL - HIGH SPEED YIELD AVERAGE



STUDY INFORMATION | Planted 5/2/2020 | Harvested 10/1/2020 | Population 34,000 Seeds/A. | Row Width 30 in. | Previous Crop Soybeans | Tillage Fall: Disk-Rip, Spring: Field Cultivation | Herbicides Pre: 1 qt. Atrazine, 4 oz. Anthem® Maxx, 1 qt. Roundup PowerMAX® Post: 1.5 qt. Lexar® EZ, 1 qt. Roundup PowerMAX® | Insecticides Escalate® | Starter 10 gal. 28-0-0 2x2x2 | Total Nitrogen 190 units as UAN | Brand 5829A4 | Soil Type Crosby (Silt Loam) | Soil Test Values pH 7.3, O.M. % 2.2, CEC 11.3 | Percent Base Saturation Ca 79.6, Mg 16.9, K 3.5, H -- | Parts Per Million P 36, K 154, S 3, Zn 2.9, Mn 62, B 0.2