

# Plant Nutrient Price Dashboard

Week Ending October 28, 2016



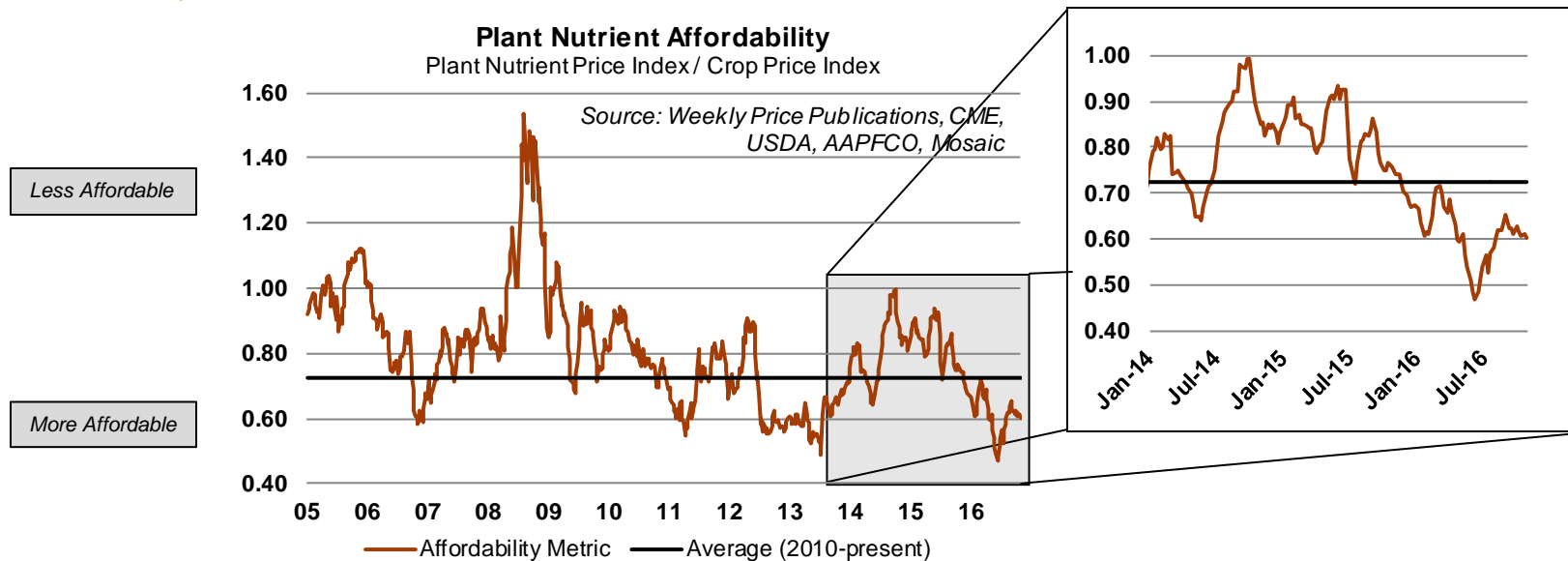
Product	Price Point	Current Week <sup>1</sup>			Average vs.		Weekly Change	Unit
		Low	High	Average	Previous Week	Year Ago		
DAP	Tampa	327	329	328	329	433	↓	\$/MT
	Morocco	335	348	341	341	481	→	\$/MT
	CFL	326	329	327	329	428	↓	\$/ST
	NOLA	305	308	306	308	419	↓	\$/ST
MAP	Brazil C&F	338	344	341	346	442	↓	\$/MT
Granular MOP	Cornbelt	243	250	247	244	323	↑	\$/ST
	Brazil C&F	231	239	235	237	288	↓	\$/MT
Standard MOP	SE Asia C&F	228	260	244	246	309	↓	\$/MT
Prilled Urea	Yuzhny	192	195	194	193	259	↑	\$/MT
Granular Urea	Middle East	197	217	207	204	254	↑	\$/MT
	NOLA	198	203	200	200	249	→	\$/ST
	Cornbelt	223	233	228	224	286	↑	\$/ST
Phosphate Rock	Morocco	94	118	106	109	123	↓	\$/MT
Ammonia-Contract	Tampa C&F	210	210	210	210	420	→	\$/MT
Sulphur-Contract	Tampa C&F	70	70	70	70	110	→	\$/LT
DAP Processing Margin <sup>2</sup>				216	217	259	↓	\$/ST
Urea Processing Margin <sup>3</sup>				131	122	187	↑	\$/ST
Crop Nutrient Price Index / Crop Price Index <sup>4</sup>				0.60	0.61	0.75	↓	

<sup>1</sup>Current week low, high and average prices are the averages from several weekly published prices.

<sup>2</sup>The DAP processing margin is calculated for an integrated central Florida producer from published spot prices. It is the difference between the fob plant price of DAP and the cost of sulphur and ammonia in one ton of DAP. The fob plant price of DAP is a weighted average of the Tampa vessel price (50%), the central Florida rail price (15%) and the NOLA barge price (35%). The calculation assumes that .388 long tons of sulphur and .280 tons of ammonia are required to produce one ton of DAP. The historic data of this metric was adjusted on 12/11/15 to reflect this new methodology.

<sup>3</sup>The urea processing margin is calculated for a Louisiana plant from published spot prices. It is the difference between the fob plant price of granular urea and cost of natural gas. The calculation assumes 24 MM Btu of natural gas are required to produce one ton of urea.

<sup>4</sup>Our homemade Plant Nutrient Affordability metric is a ratio of a plant nutrient price index and a crop price index. The plant nutrient price index is a weighted average of indices for urea, DAP and MOP prices. These indices are calculated using weekly published spot prices at key U.S. pricing points. Weights are N, P, and K percentages of total U.S. nutrient use from 2005 to 2007. The crop price index is a weighted average of indices for corn, soybeans and wheat. These indices are calculated using the weekly average of the daily closing price of the front month futures contract. Weights are the shares of total U.S. production of these three crops from 2005 to 2007. The base year for all indices is 2005. On April 17, 2015, the DAP price benchmark utilized in the affordability ratio was switched from fob Central Florida to fob NOLA due to the latter's greater breadth of price discovery. The entire time series reflects this change.



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Index	Current Week	Prior Week	Prior Month	Prior Year	Avg Since 2010
<b>Plant Nutrient Affordability Ratio</b>	<b>0.60</b>	<b>0.61</b>	<b>0.61</b>	<b>0.75</b>	<b>0.72</b>
<b>Crop Price Index</b>	<b>164</b>	<b>161</b>	<b>156</b>	<b>170</b>	<b>229</b>
<b>Plant Nutrient Price Index</b>	<b>99</b>	<b>99</b>	<b>95</b>	<b>128</b>	<b>162</b>
DAP Affordability Ratio	0.82	0.84	0.89	1.08	0.89
MOP Affordability Ratio	0.72	0.73	0.74	0.91	0.90
Urea Affordability Ratio	0.47	0.48	0.45	0.57	0.59

Source: Weekly Price Publications, CME, USDA, AAPFCO, Mosaic

Our homemade Plant Nutrient Affordability metric is the ratio of a plant nutrient price index and a crop price index. A ratio less than one indicates that plant nutrient products are more affordable than during the base year, and a ratio greater than one means that plant nutrients are less affordable than during the base year. The base year for these two indexes is 2005. Plant nutrient prices are from key U.S. pricing points, and crop prices are front month futures prices. The plant nutrient price index includes urea, diammonium phosphate (DAP) and muriate of potash (MOP) prices at key U.S. pricing points weighted by nitrogen, phosphate and potash shares of total U.S. plant nutrient use. The crop price index includes the daily closing price of the front month option for corn, soybeans and wheat weighted by the share of acres accounted for by each crop.