

# Veggie Tales: Stories from the World of Agricultural Data

**Nemo semret**  
CTO, Gro Intelligence



# About Clews

Clews is a web-based product developed by Gro Intelligence that pulls every scattered bit of data related to food and agricultural and classifies it using a common language, transforming fragmented data into information. Its analytics capabilities and intuitive visualizations make it easy to discover, examine, and understand relevant information.



# About Clews



## A Single Destination

Clews pulls data relevant to food and agriculture, including data from satellites, public organizations, trade groups, and industry publications. From these sources, it connects trillions of data points and petabytes of data, covering information such as crop production, consumption, weather, infrastructure, prices, trade, as well as socio-economic and environmental indicators. All this data is constantly updated so you have the most up-to-date information at hand.



## Creating A Common Language

Clews maps sprawling data sets to a single classification system developed by Gro. By creating this semantic ontology, Clews allows you to perform normalized comparisons and complex analysis in minutes.



## Intelligence

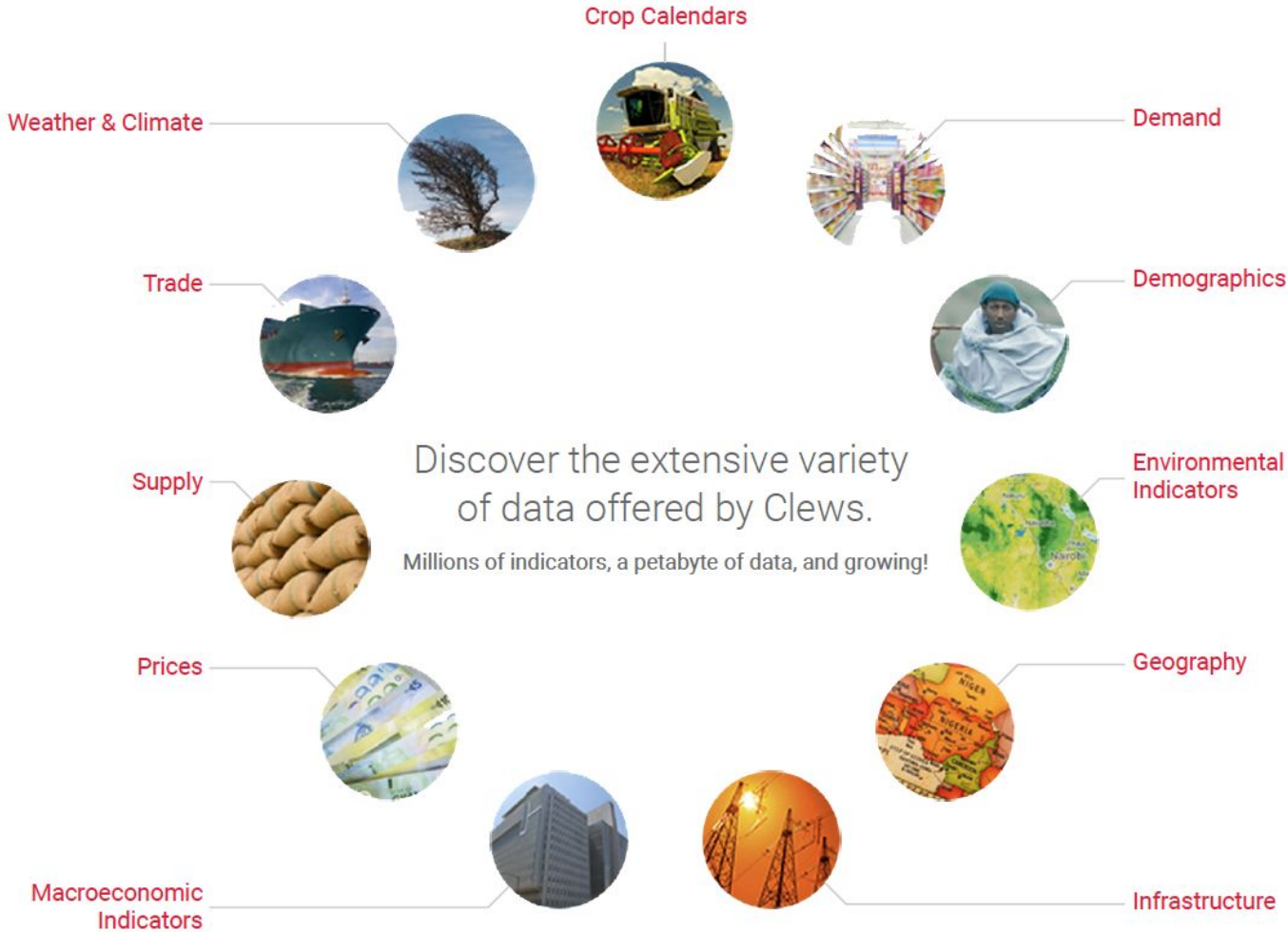
Through Clews, you can access food and agriculture information with ease. With the ability to drill down to any location on earth, Clews can look at weather, environmental, and market data on any day in the last decade, or in some cases as far back as 1762. This refined information, paired with Clews' powerful analytics, arms decision makers with deep understanding and insight into the markets and crops that interest them.



## Intuitive Design

While clunky visual formats are the norm in the agricultural industry, Clews offers a refreshingly clear, interactive experience built on the principle that good design has the power to strengthen, optimize and democratize data. The interactive experience of Clews allows experts and non-experts alike to easily explore and make sense of complex geospatial data sets related to weather and environment.●

# About Clews





## Clews in Use

The following slides showcase real examples of how Clews can be used for research and enable you to make smarter, more informed decisions at a global scale.



# Agriculture in the Media

## Maize shortage sparks fears of high flour prices

By **Citizen Reporter**, Citizen Digital  
Published on 22 June 2016

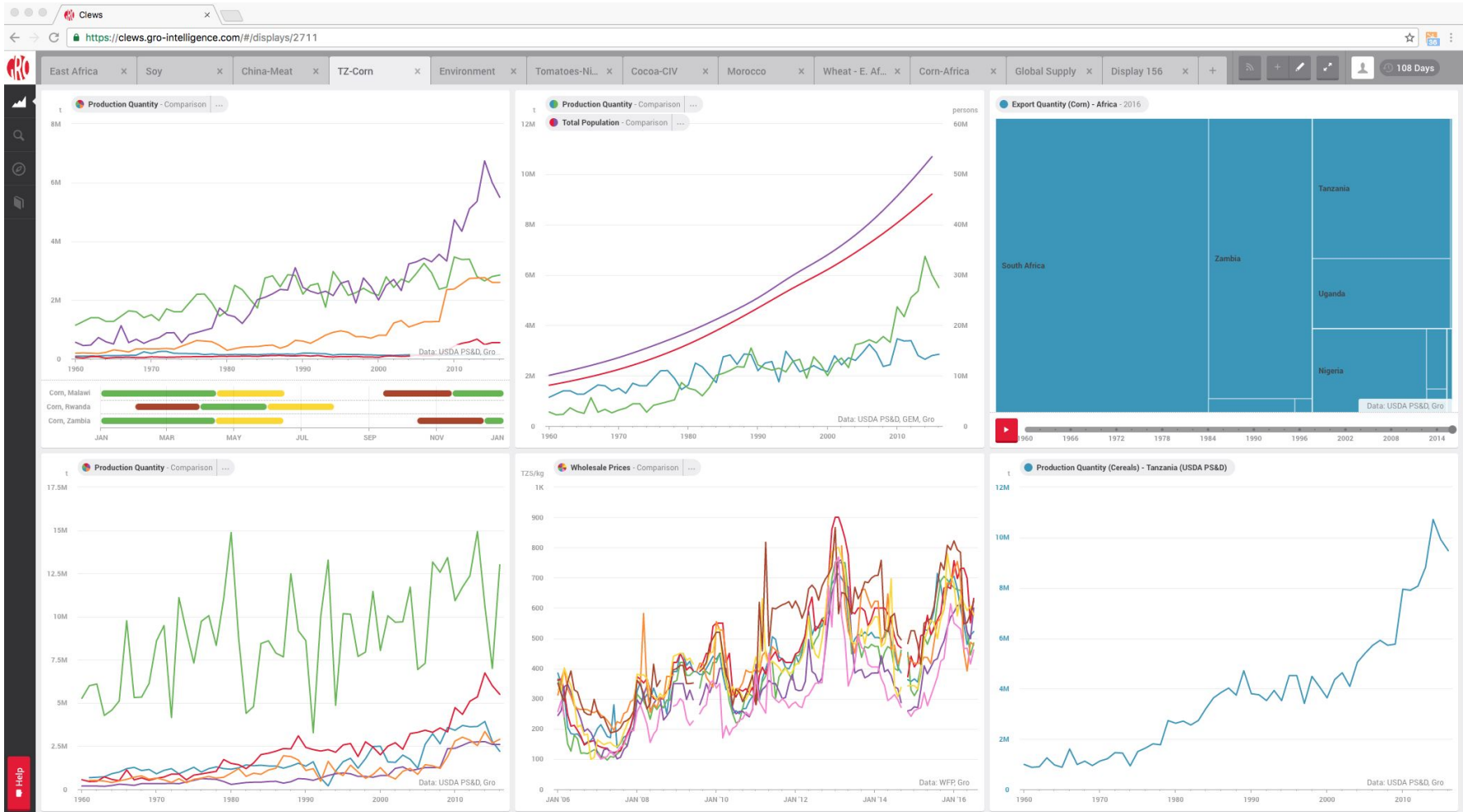
## As drought hits corn, Tanzania cooks up a sweet potato fix

By Kizito Makoye and Beatrice Rabachi/Reuters on Sep 8, 2015 at 8:22 a.m.

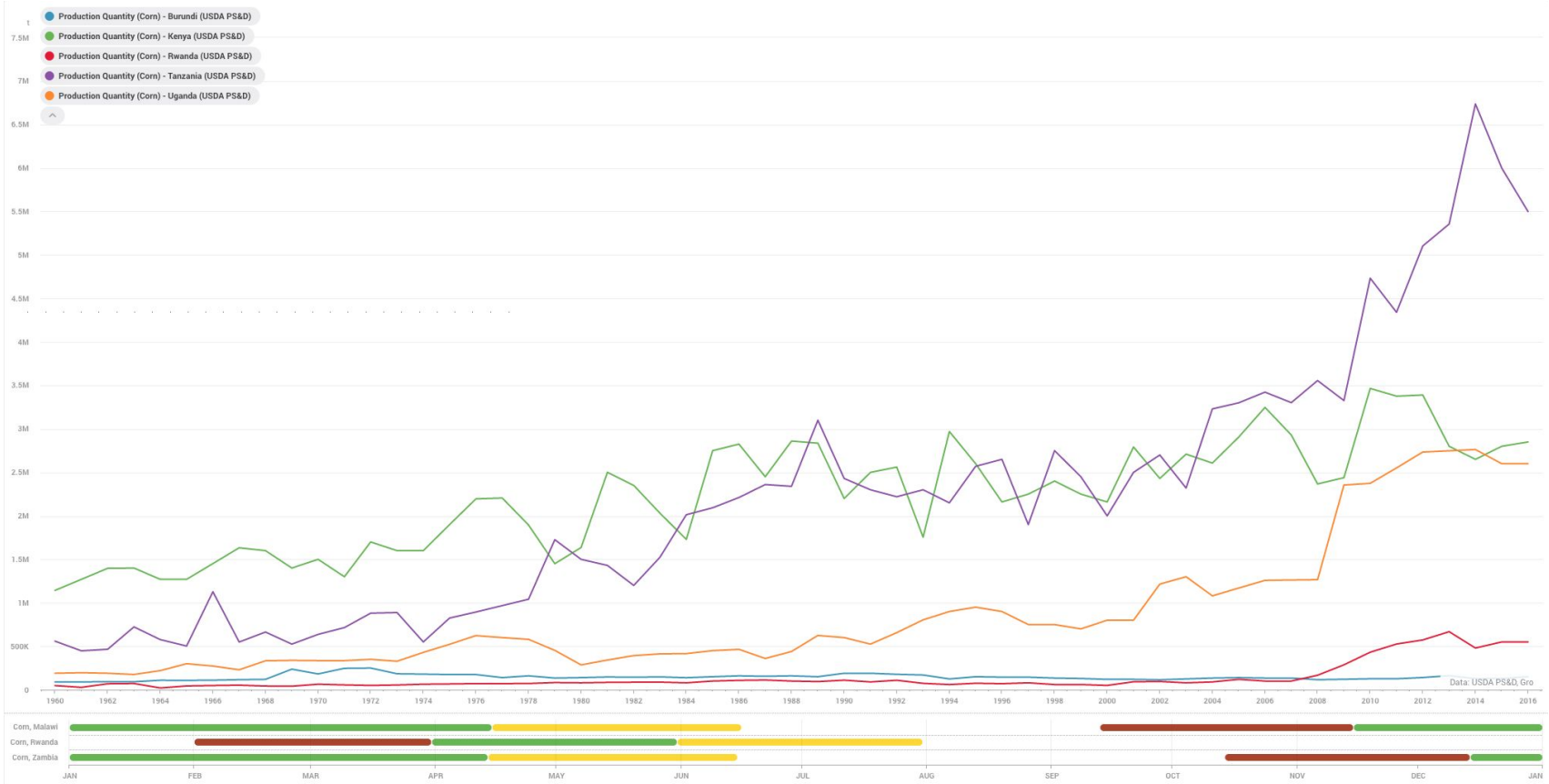


"The Tanzanian maize has just started to come in to the market and I just want to say that we don't bring that maize in, the traders do. We see a tightness of supply and I don't know where prices are going to end up," Mr Hutchison said.

# Tanzania's Corn Production After Its 2016 Drought



# Tanzania's Corn Production After Its 2016 Drought





# Tanzania's Corn Production After Its 2016 Drought

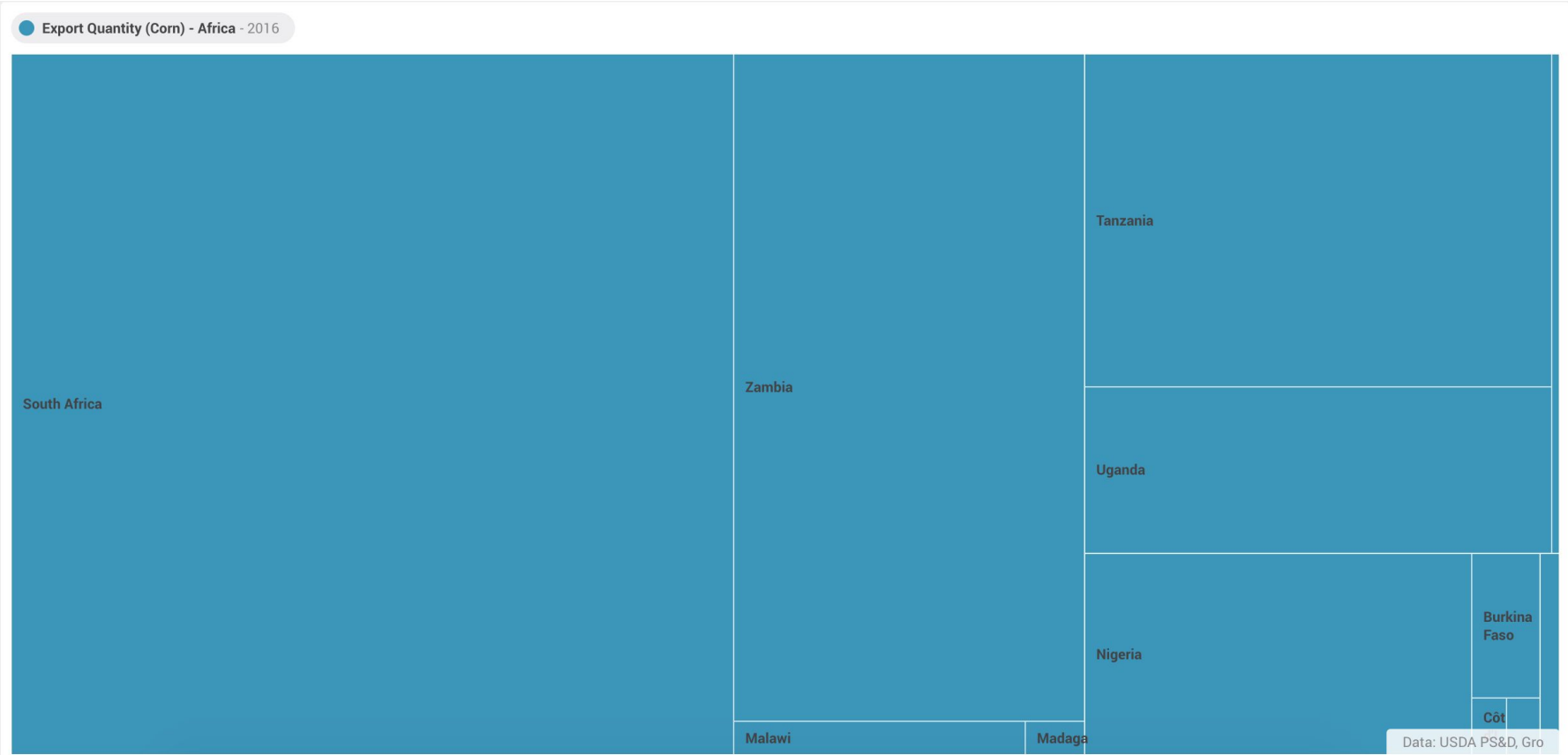


# Tanzania's Corn Production After Its 2016 Drought

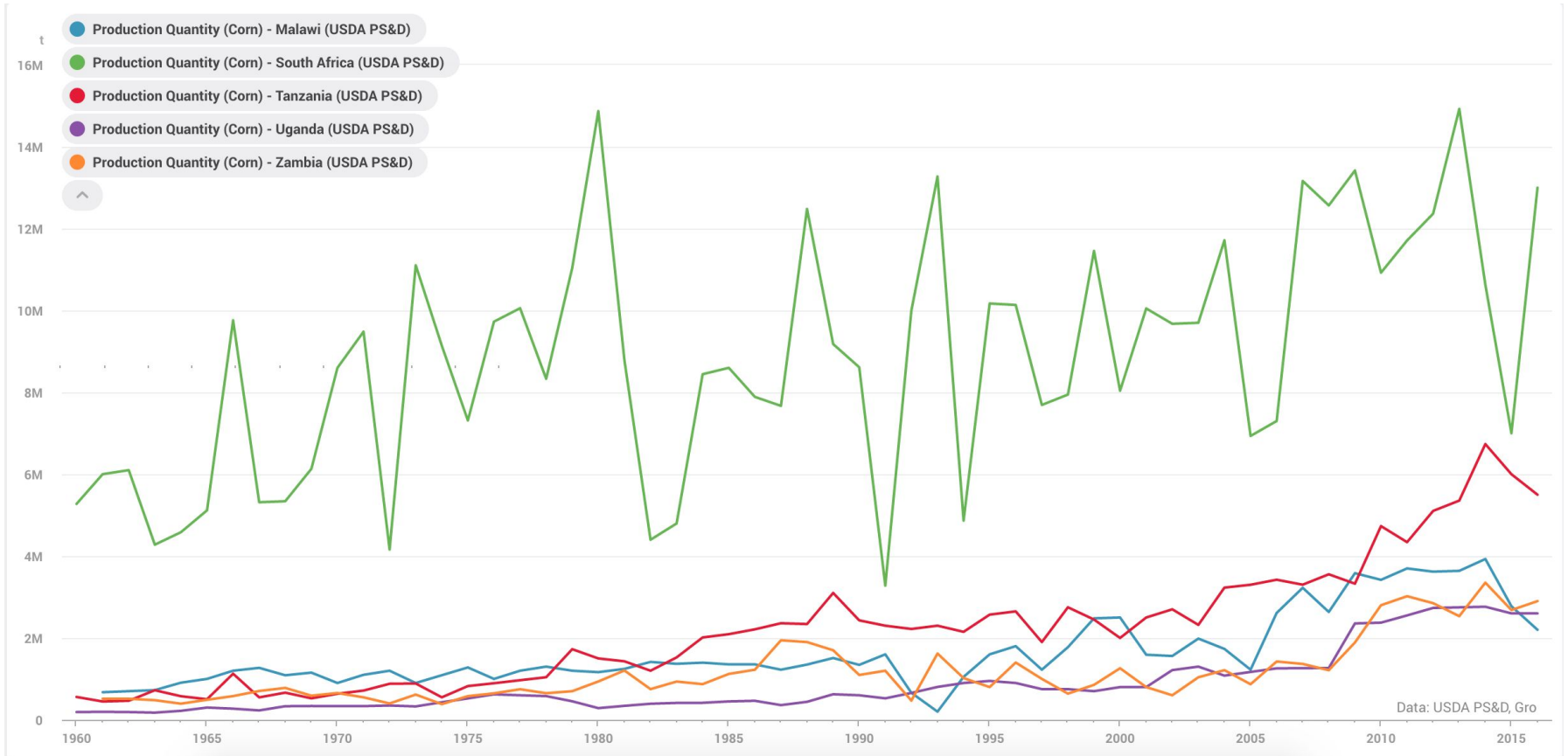
● Export Quantity (Corn) - Africa - 2002



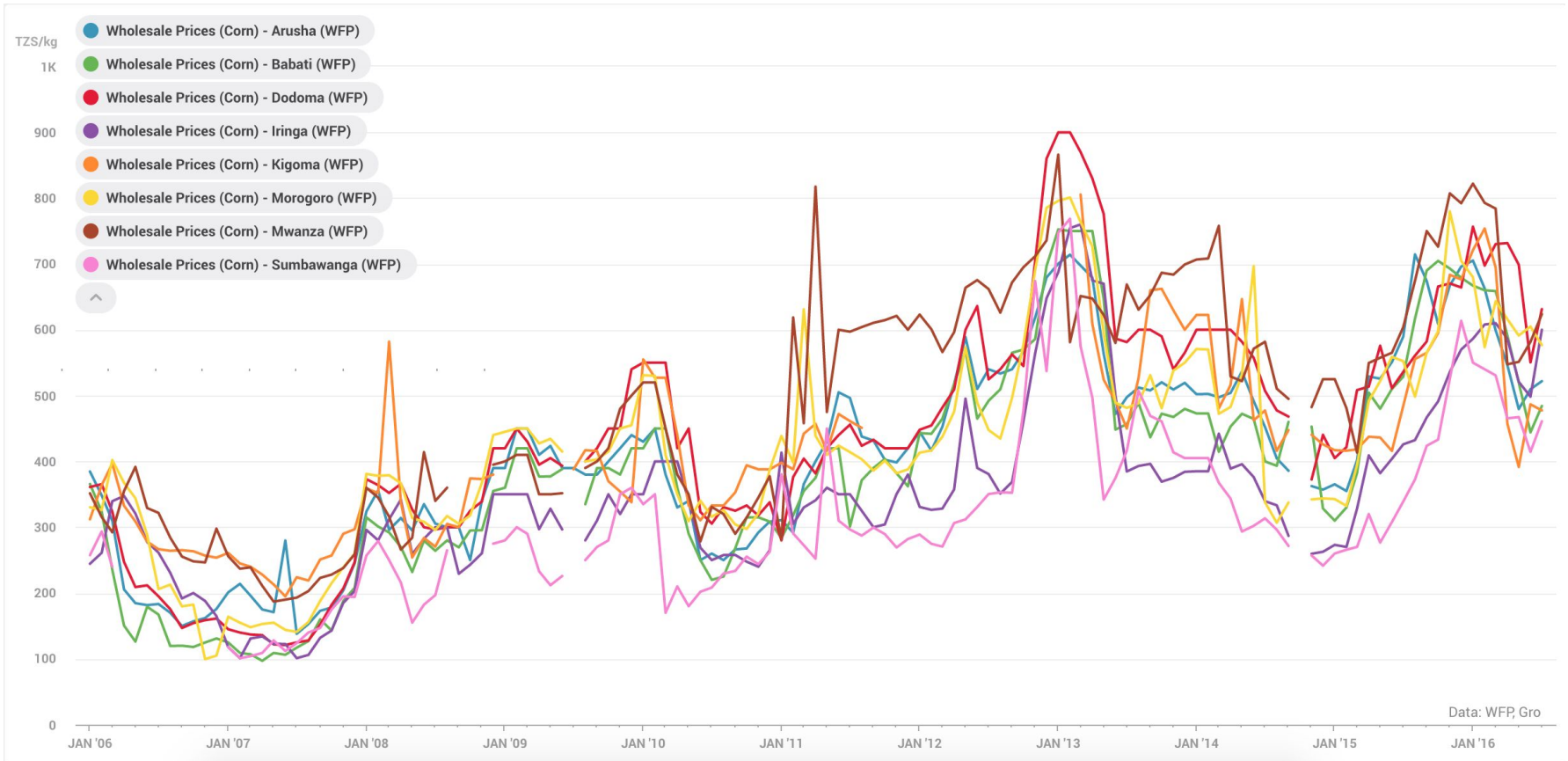
# Tanzania's Corn Production After Its 2016 Drought



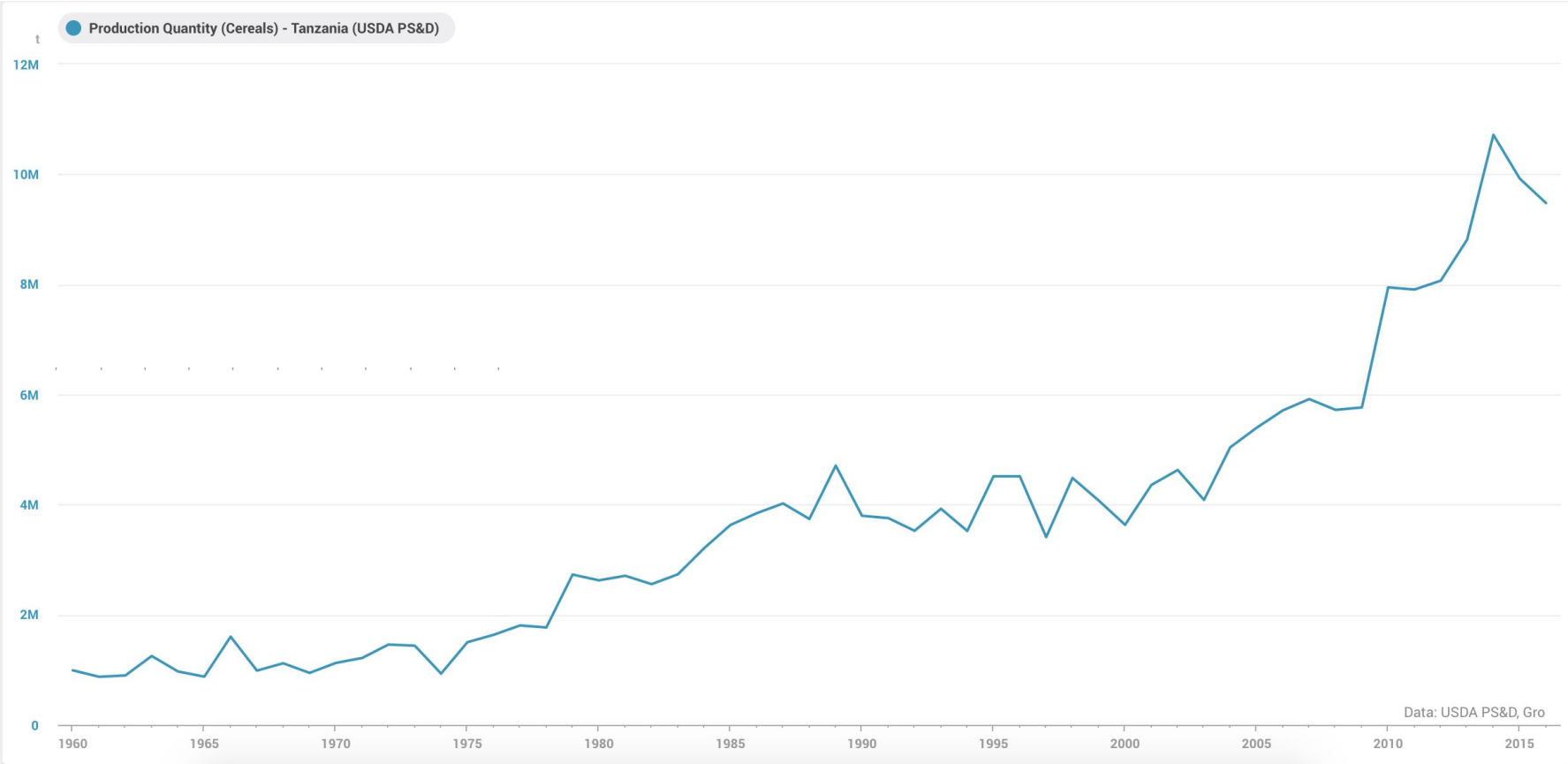
# Tanzania's Corn Production After Its 2016 Drought



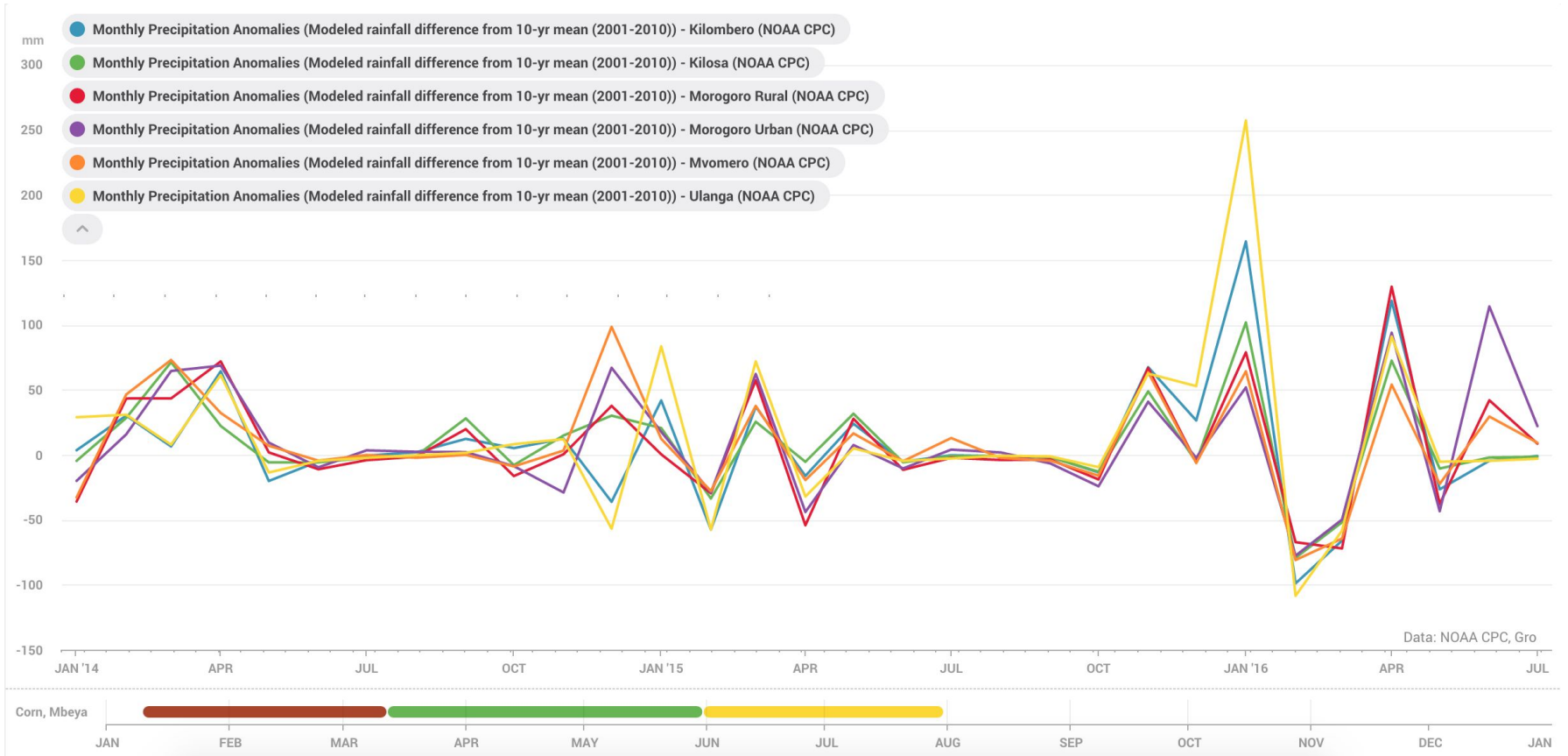
# Tanzania's Corn Production After Its 2016 Drought



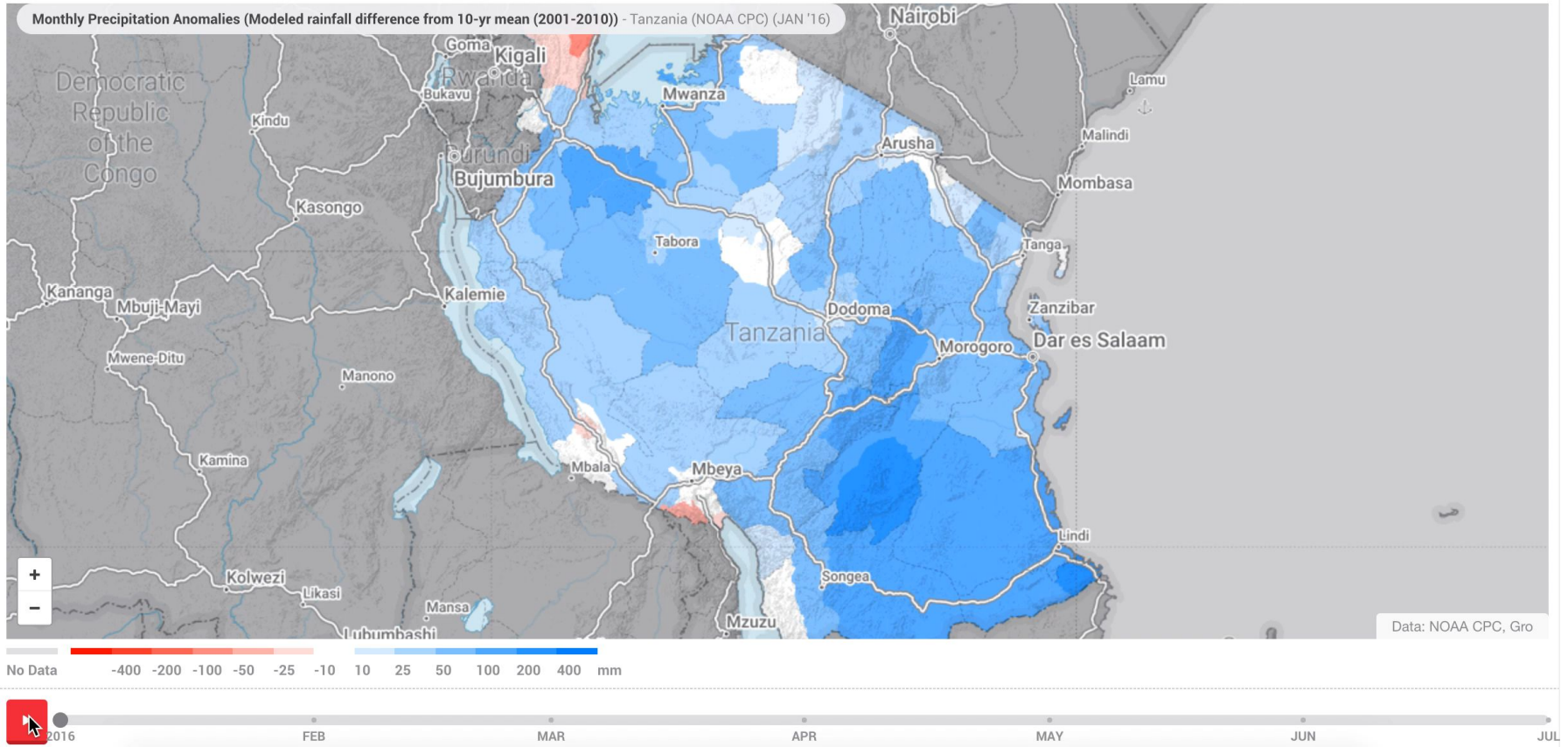
# Tanzania's Corn Production After Its 2016 Drought



# Tanzania's Corn Production After Its 2016 Drought



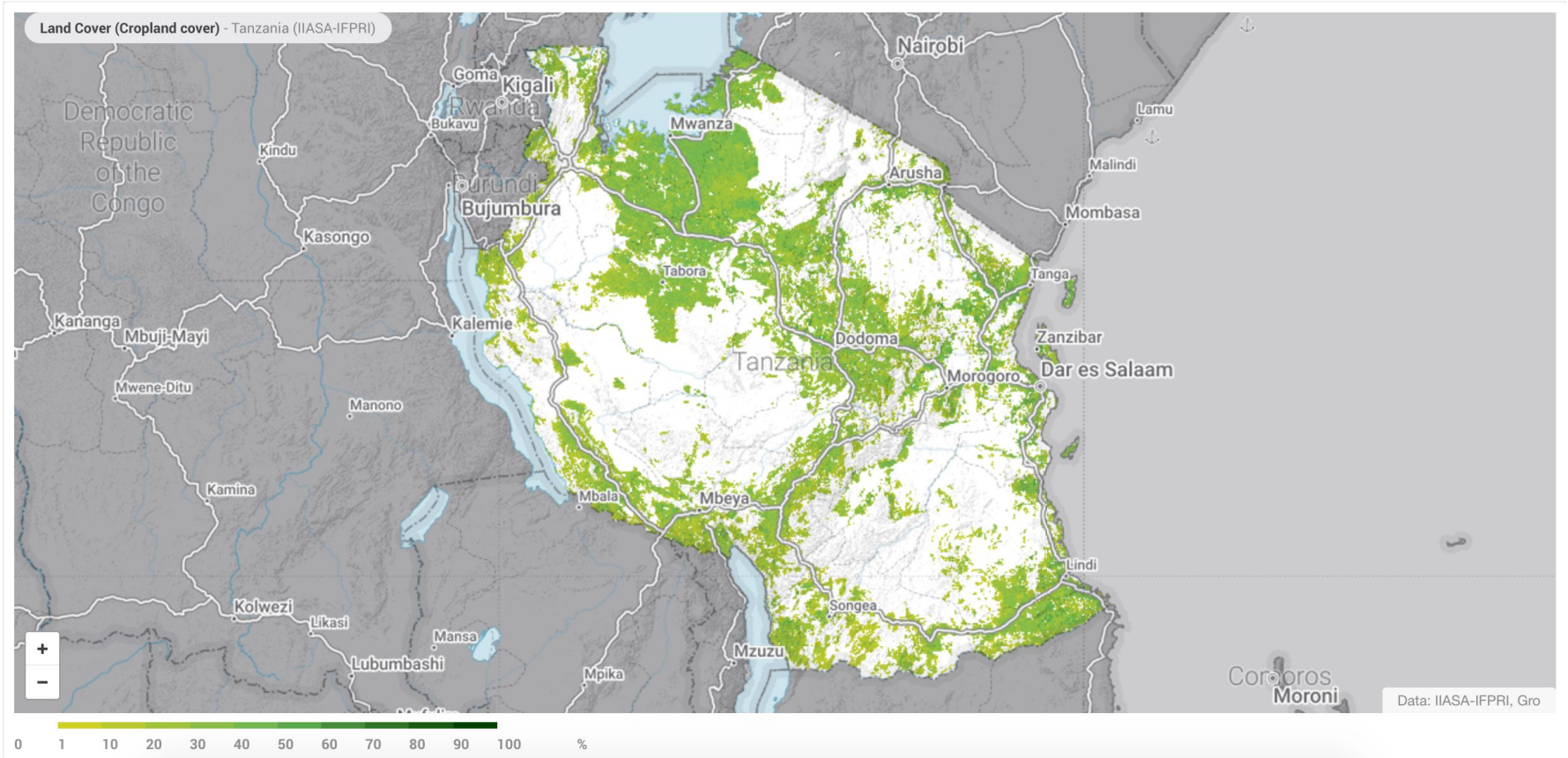
# Tanzania's Corn Production After Its 2016 Drought



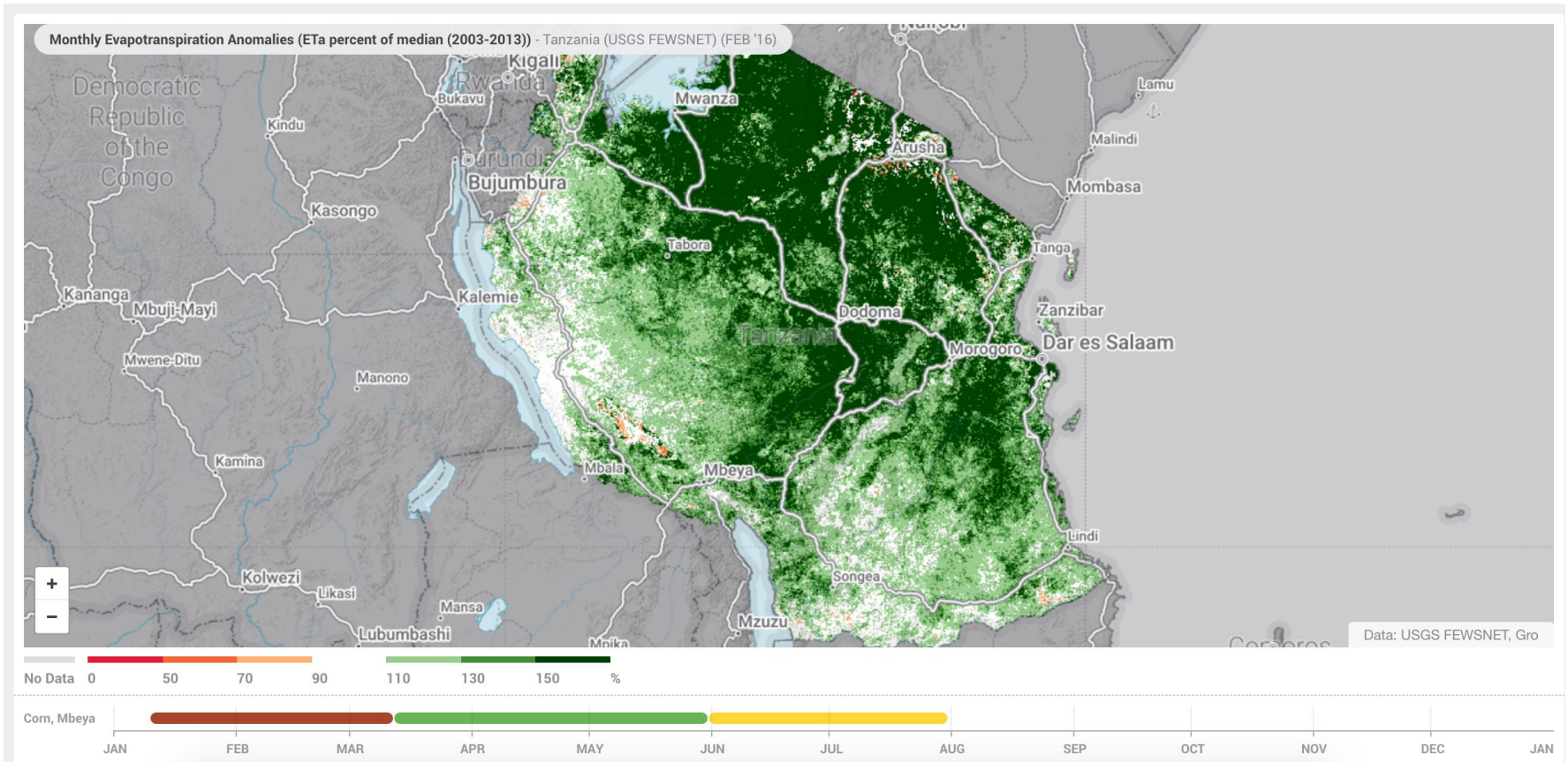




# Tanzania's Corn Production After Its 2016 Drought



# Tanzania's Corn Production After Its 2016 Drought



# Agriculture in the Media

*Corruption in Egypt*

## Egypt's dirty wheat problem

ruption – including graft in  
priorities. But officials,  
have gone wrong

# Egypt's Parliament to Submit Proposals to Reform Wheat Purchases

## Is Egyptian government pushing farmers to stop growing wheat?

In November, the [Egyptian government](#) announced that it would start buying wheat from local farmers at the average global price to encourage Egyptian farmers to grow the crop. Egypt is seeking to reduce the gap between domestic production and actual consumption, seeing that the [country consumes](#) about [18 million tons of wheat](#) annually but has a domestic production of less than 9 million tons.

MIDDLE EAST

### *Military Man Named Supply Minister for Top Wheat Importer Egypt*

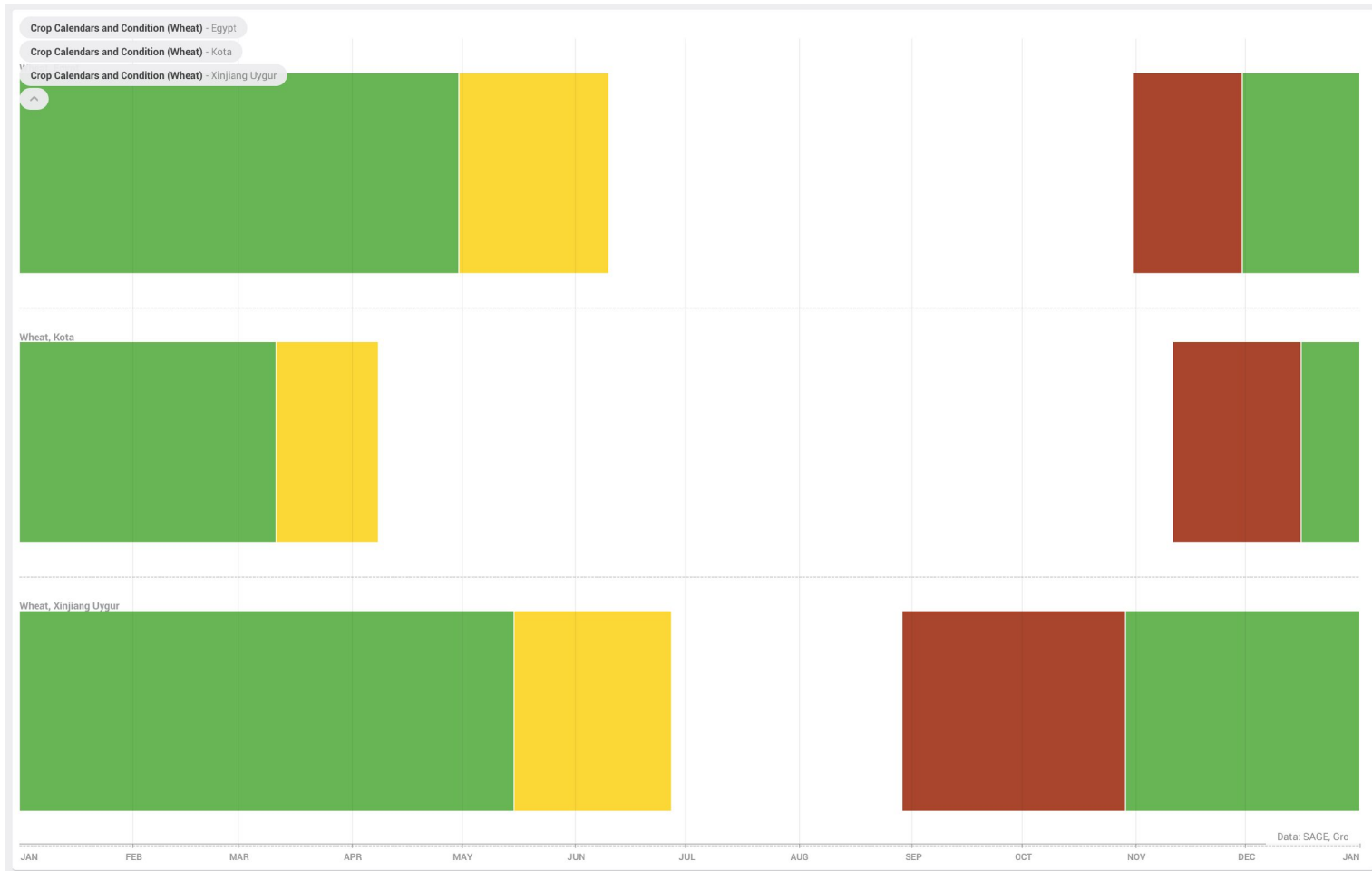
By REUTERS SEPT. 6, 2016, 9:48 A.M. E.D.T.



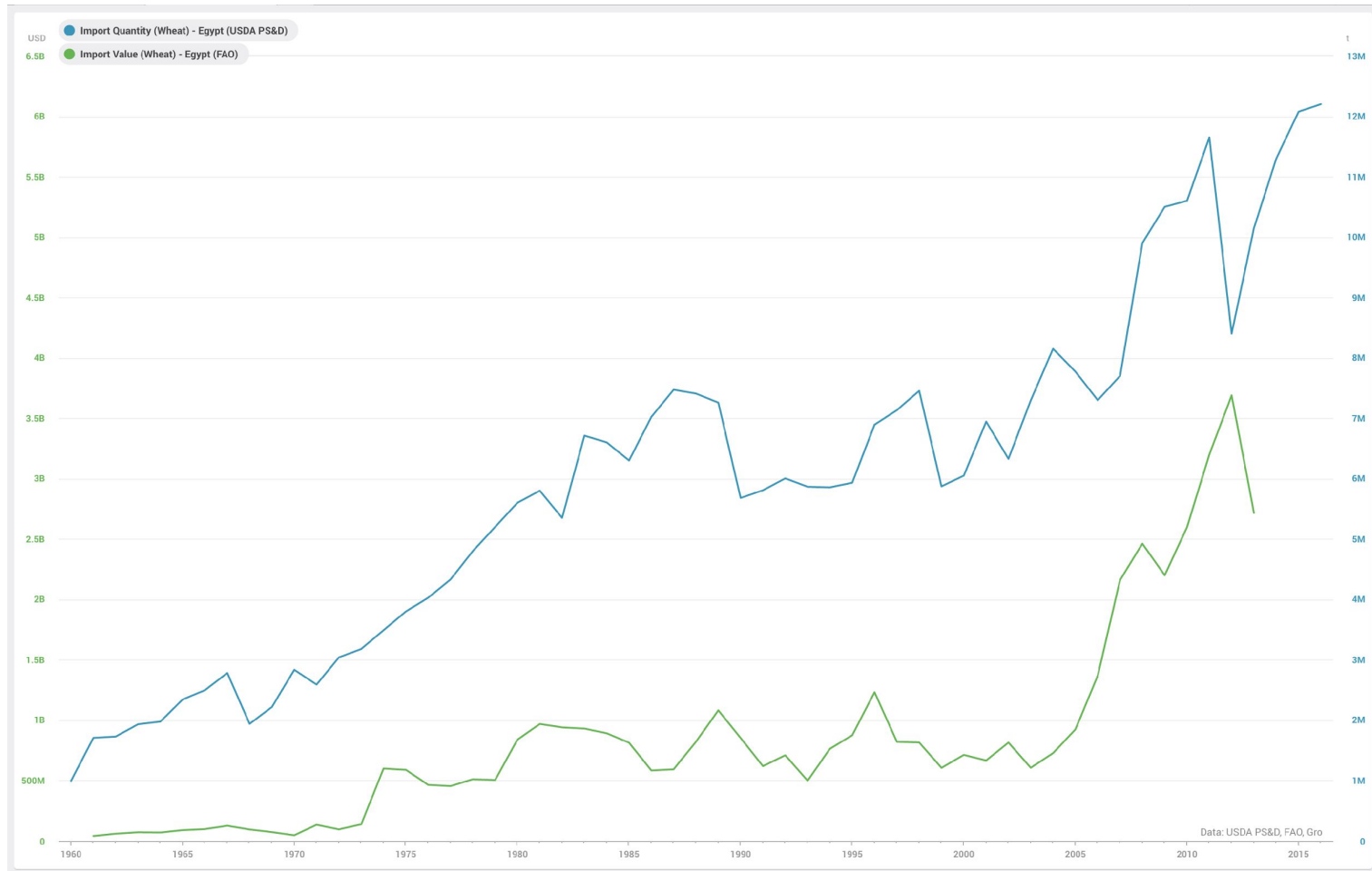
# Egyptian Wheat Crisis



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# Egyptian Wheat Crisis



# Egyptian Wheat Crisis

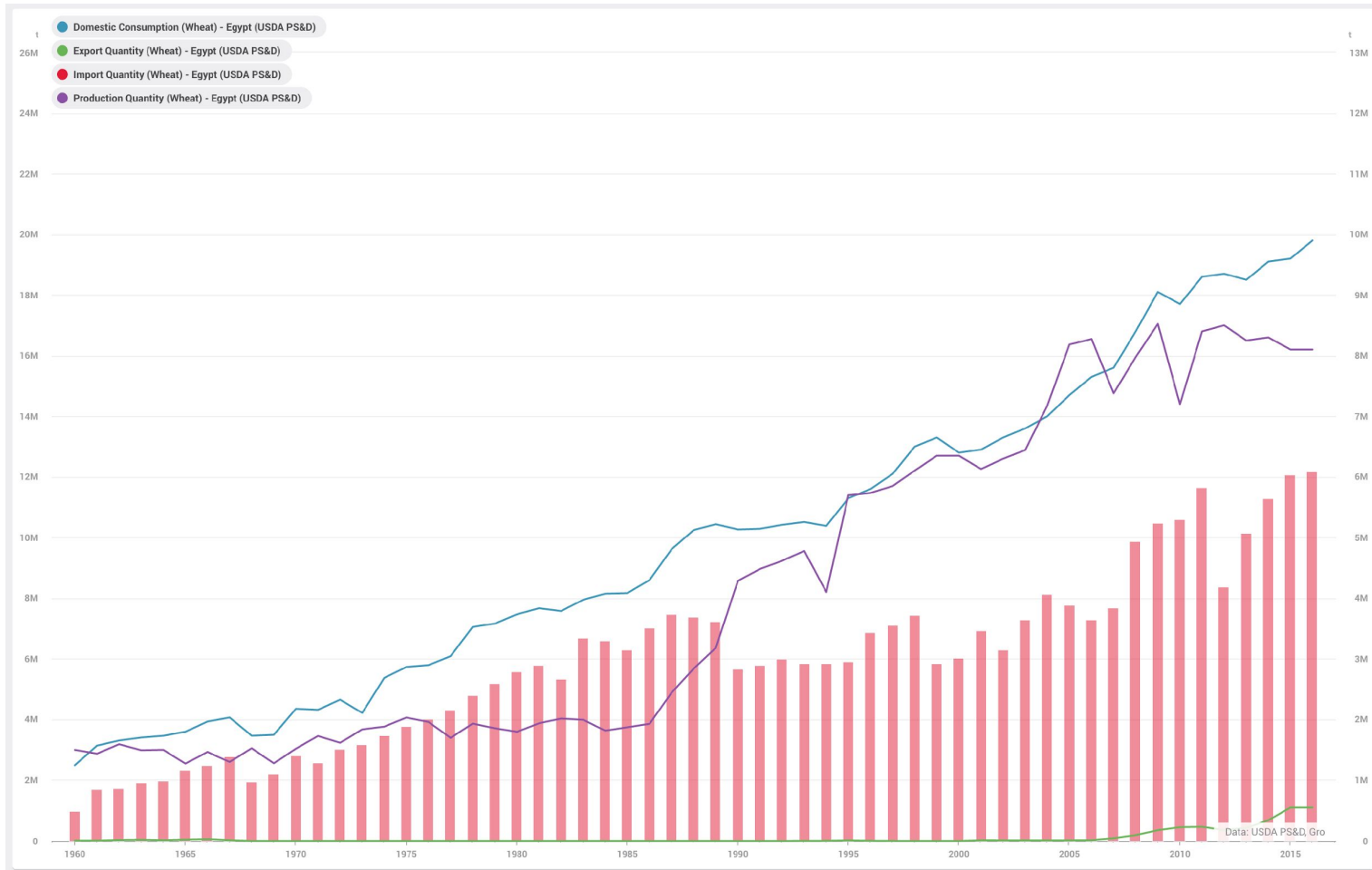
Balance Sheet (Wheat) - Egypt																
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
▼ Supply																
Beginning Carryover (mil. bu)	62.83	68.82	43.73	48.43	96.82	142.57	152.19	131.47	167.59	195.07	190.48	235.24	162.59	151.09	157.01	172.62
Yield (bu/acre)	91.00	92.94	93.08	97.55	96.65	95.61	96.21	96.80	95.91	84.91	97.55	93.68	90.85	91.45	95.61	95.61
Harvested Area (mil. acre)	2.48	2.49	2.54	2.70	3.11	3.18	2.82	3.03	3.27	3.11	3.16	3.34	3.34	3.34	3.11	3.11
Production (mil. bu)	225.24	231.49	236.74	263.71	300.71	304.02	271.13	293.11	313.17	264.56	308.65	312.32	303.14	304.98	297.63	297.63
Imports (mil. bu)	255.15	232.48	268.05	299.46	285.54	268.23	282.93	363.77	385.81	389.49	428.07	308.65	372.95	415.21	443.68	448.28
<b>Total Supply<sup>1</sup> (mil. bu)</b>	<b>543.22</b>	<b>532.79</b>	<b>548.51</b>	<b>611.60</b>	<b>683.07</b>	<b>714.82</b>	<b>706.26</b>	<b>788.34</b>	<b>866.57</b>	<b>849.12</b>	<b>927.20</b>	<b>856.21</b>	<b>838.68</b>	<b>871.27</b>	<b>898.32</b>	<b>918.53</b>
▼ Demand																
Feed & Residual (mil. bu)	22.05	29.40	36.74	44.09	66.14	73.49	66.14	80.84	102.88	80.84	95.53	80.84	73.49	73.49	51.44	55.12
Food, Seed, Industrial (mil. bu)	451.95	459.30	462.97	470.32	474.00	488.70	507.07	536.46	562.18	569.53	587.90	606.28	606.28	628.32	654.04	672.42
Domestic Consumption (mil. b...)	474.00	488.70	499.72	514.42	540.14	562.18	573.21	617.30	665.07	650.37	683.44	687.11	679.76	701.81	705.48	727.53
Exports (mil. bu)	0.40	0.37	0.37	0.37	0.37	0.44	1.58	3.45	6.43	8.27	8.52	6.50	7.83	12.46	20.21	20.21
<b>Total Demand<sup>2</sup> (mil. bu)</b>	<b>474.40</b>	<b>489.06</b>	<b>500.09</b>	<b>514.78</b>	<b>540.50</b>	<b>562.62</b>	<b>574.79</b>	<b>620.75</b>	<b>671.50</b>	<b>658.64</b>	<b>691.96</b>	<b>693.62</b>	<b>687.59</b>	<b>714.27</b>	<b>725.69</b>	<b>747.74</b>
▼ Stocks																
Ending Carryover (mil. bu)	68.82	43.73	48.43	96.82	142.57	152.19	131.47	167.59	195.07	190.48	235.24	162.59	151.09	157.01	172.62	170.79
Carryover, Weeks of Total Use <sup>3</sup>	7.54	4.65	5.04	9.78	13.72	14.07	11.89	14.04	15.11	15.04	17.68	12.19	11.43	11.43	12.37	11.88
Ending Stocks-to-Use <sup>4</sup> (%)	14.51%	8.94%	9.68%	18.81%	26.38%	27.05%	22.87%	27.00%	29.05%	28.92%	34.00%	23.44%	21.97%	21.98%	23.79%	22.84%

1. Total Supply figures from USDA PS&D. 2. Total Demand = Total Consumption + Exports. 3. Carryover, Weeks of Total Use = Ending Carryover / (Total Demand/52). 4. Ending Stocks-to-Use = Ending Carryover / Total Demand.

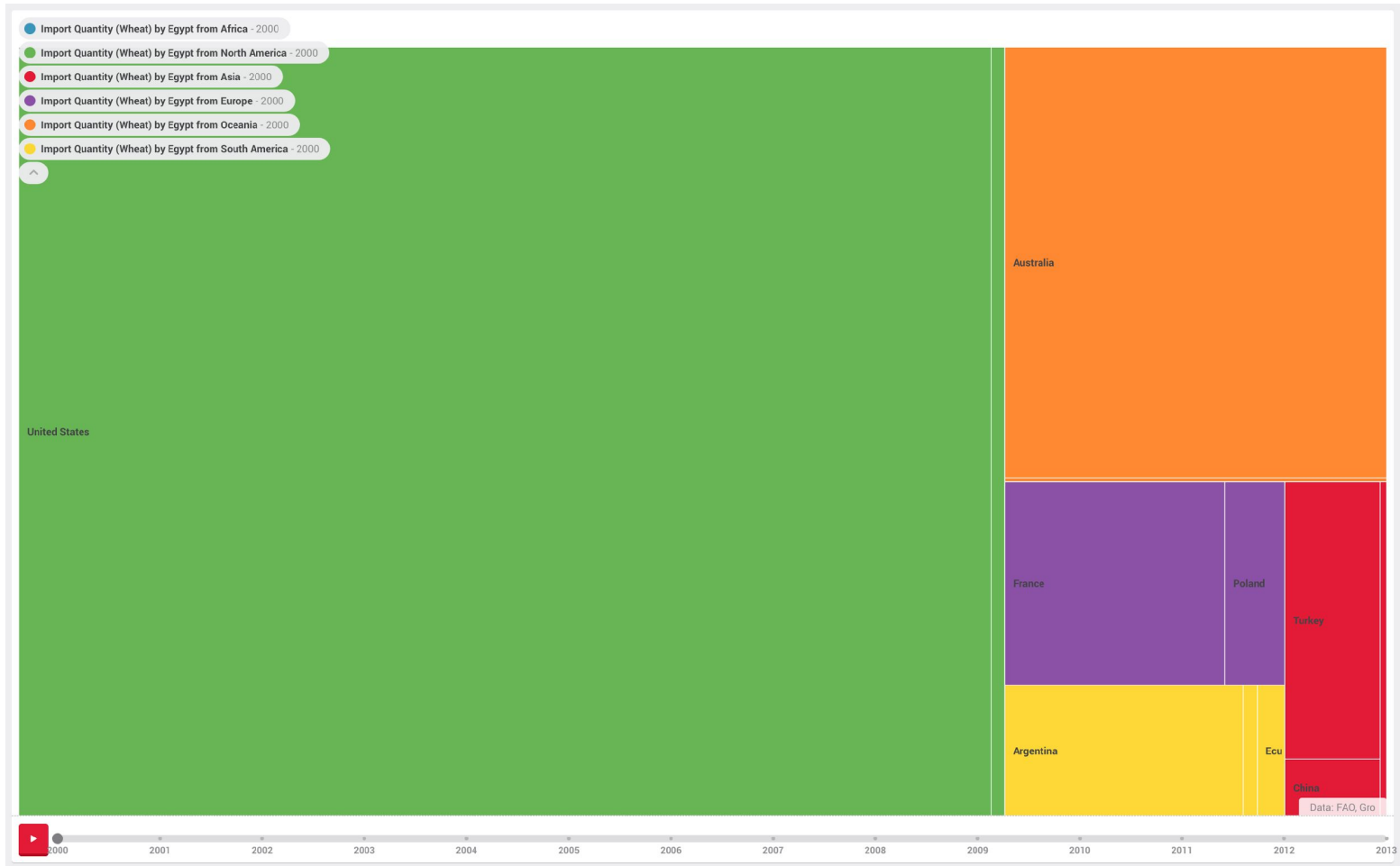
Data: USDA PS&D Gro



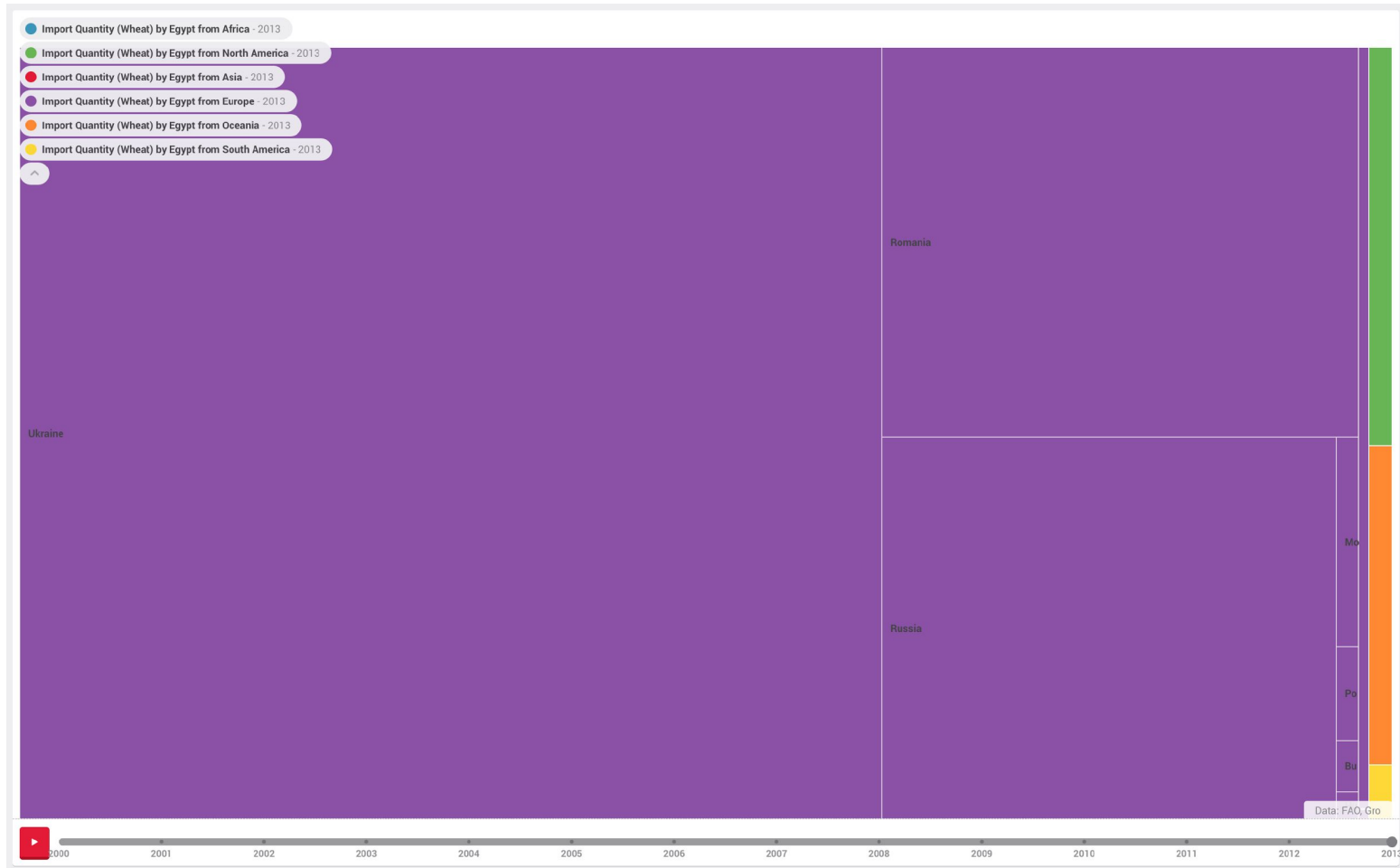
# Egyptian Wheat Crisis



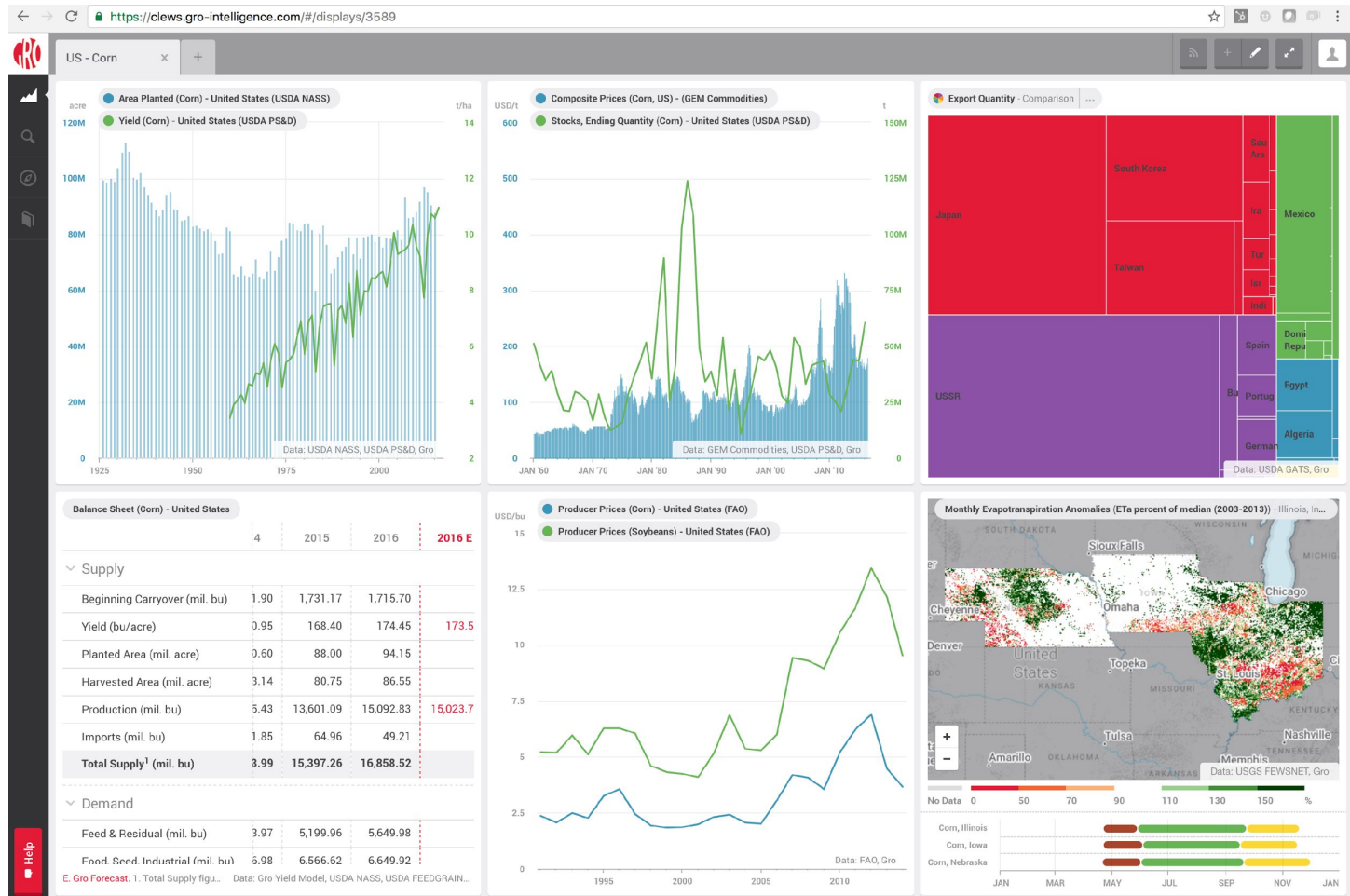
# Egyptian Wheat Crisis



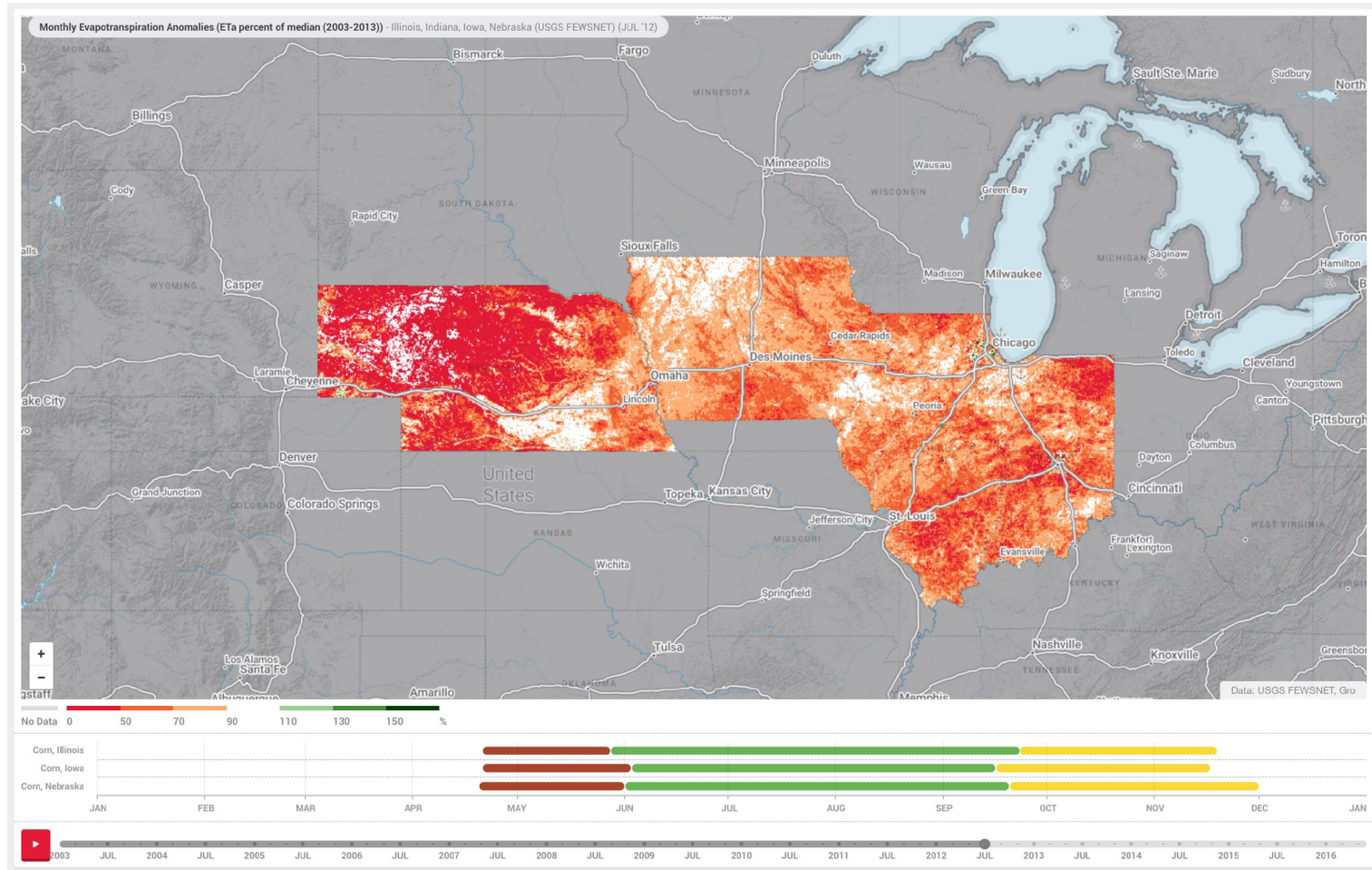
# Egyptian Wheat Crisis



# How the 2012 Drought the Affected US Corn Market



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Balance Sheet (Corn) - United States																
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2016 E
∨ Supply																
Beginning Carryover (mil. bu)	1,596.41	1,086.67	958.10	2,113.94	1,967.14	1,303.63	1,624.13	1,673.30	1,707.78	1,127.66	989.00	821.18	1,231.90	1,731.17	1,715.70	
Yield (bu/acre)	129.37	142.11	160.27	148.01	149.12	150.71	153.26	164.41	152.63	146.73	123.15	158.20	170.95	168.40	174.45	173.58
Planted Area (mil. acre)	78.89	78.60	80.93	81.78	78.33	93.53	85.98	86.38	88.19	91.94	97.29	95.37	90.60	88.00	94.15	
Harvested Area (mil. acre)	69.33	70.94	73.63	75.12	70.64	86.52	78.57	79.49	81.45	83.88	87.37	87.45	83.14	80.75	86.55	
Production (mil. bu)	8,966.73	10,087.22	11,805.52	11,112.13	10,531.06	13,037.78	12,043.10	13,067.07	12,425.25	12,313.88	10,755.02	13,828.88	14,215.43	13,601.09	15,092.83	15,023.78
Imports (mil. bu)	14.72	14.02	11.06	8.27	12.56	19.72	13.27	9.33	26.93	30.12	167.90	28.62	31.85	64.96	49.21	
<b>Total Supply<sup>1</sup> (mil. bu)</b>	<b>0,577.59</b>	<b>11,187.99</b>	<b>12,774.44</b>	<b>13,234.89</b>	<b>12,510.17</b>	<b>14,361.45</b>	<b>13,680.77</b>	<b>14,748.71</b>	<b>14,160.71</b>	<b>13,470.90</b>	<b>11,903.98</b>	<b>14,685.84</b>	<b>15,478.99</b>	<b>15,397.26</b>	<b>16,858.52</b>	
∨ Demand																
Feed & Residual (mil. bu)	5,544.51	5,777.61	6,131.61	6,111.25	5,535.30	5,853.00	5,128.08	5,095.56	4,770.10	4,512.05	4,308.59	5,032.92	5,313.97	5,199.96	5,649.98	
Food, Seed, Industrial (mil. bu)	2,358.54	2,552.46	2,710.84	3,022.71	3,545.88	4,446.93	5,030.48	5,966.34	6,432.02	6,430.72	6,044.13	6,500.25	6,566.98	6,566.62	6,649.92	
Ethanol (mil. bu)	995.50	1,167.55	1,323.21	1,603.32	2,119.49	3,049.21	3,708.89	4,591.16	5,018.74	5,000.03	4,641.13	5,123.69	5,200.09	5,200.00	5,275.00	
Domestic Consumption (mil. b...)	7,903.05	8,330.07	8,842.45	9,133.97	9,081.17	10,299.93	10,158.56	11,061.90	11,202.13	10,942.77	10,352.72	11,533.17	11,880.95	11,766.58	12,299.90	
Exports (mil. bu)	1,611.10	1,921.51	1,785.22	2,207.91	2,134.30	2,388.18	1,880.14	1,956.43	1,777.94	1,509.45	718.94	1,995.60	1,843.64	1,948.72	2,165.24	
<b>Total Demand<sup>2</sup> (mil. bu)</b>	<b>9,514.14</b>	<b>10,251.58</b>	<b>10,627.67</b>	<b>11,341.88</b>	<b>11,215.47</b>	<b>12,688.11</b>	<b>12,038.70</b>	<b>13,018.33</b>	<b>12,980.06</b>	<b>12,452.22</b>	<b>11,071.66</b>	<b>13,528.77</b>	<b>13,724.59</b>	<b>13,715.30</b>	<b>14,465.14</b>	
∨ Stocks																
Ending Carryover (mil. bu)	1,086.67	958.10	2,113.94	1,967.14	1,303.63	1,624.13	1,673.30	1,707.78	1,127.66	989.00	821.18	1,231.90	1,731.17	1,715.70	2,383.61	
Carryover, Weeks of Total Use <sup>3</sup>	5.94	4.86	10.34	9.02	6.04	6.66	7.23	6.82	4.52	4.13	3.86	4.74	6.56	6.50	8.57	
Ending Stocks-to-Use <sup>4</sup> (%)	11.42%	9.35%	19.89%	17.34%	11.52%	12.80%	13.90%	13.12%	8.69%	7.94%	7.42%	9.11%	12.61%	12.51%	16.48%	
∨ Prices																
US Weighted Avg. Farm Price...	\$2.13	\$2.27	\$2.47	\$1.96	\$2.28	\$3.39	\$4.78	\$3.75	\$3.83	\$6.02	\$6.67	\$6.15	\$4.11	\$3.71	N/A	

E. Gro Forecast. 1. Total Supply figures from USDA PS&D. 2. Total Demand = Total Consumption + Exports. 3. Carryover, Weeks of Total Use = Ending Carryover / (Total Demand/52). 4. Ending Stocks-to-Use = Ending Carryover / Total Dem... Data: Gro Yield Model, USDA NASS, USDA FEEDGRAIN...





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