



Model Performance Report

2023/24



2023/2024

Model Performance

Discover another year of unprecedented accuracy for Octopusbot AI Forecasts.



Welcome to our 2023/24 Performance Report. It's our pleasure to present a year marked by outstanding achievements in Octopusbot's AI forecasting. This year, our models showcased an impressive average accuracy rate of 96.2%, with an average lead time of six months. This signifies an improvement from last season's 94.2% accuracy and demonstrates our consistent ability to predict trends well in advance and the continuous improvement of our AI models.

The anticipated El Niño event significantly influenced the 2023/24 grain and oilseed crop season. Predicted to commence in the second quarter of 2023, El Niño was expected to have mixed impacts across the globe—benefiting certain regions in the Northern Hemisphere and South America while posing challenges for Australia and Brazil's central areas.

However, a delay in El Niño's onset altered early-year weather forecasts, impacting Octopusbot AI's production predictions, notably in Argentina.

Starting in August 2023, the price experienced a downward shift, primarily due to diminished demand. This trend was influenced by a reduction in exports from the United States, a decrease in imports by leading importer countries, and an imbalance in short positions held by managed funds. Despite these challenges, the Octopusbot models adeptly navigated the market's fluctuations, maintaining the market trend despite sudden changes.

In conclusion, this year has further solidified Octopusbot's standing as a global frontrunner in AI forecasting for the grain and oilseed industry, underscoring our unparalleled competitive edge to our customers.

Production Estimates

SUMMARY

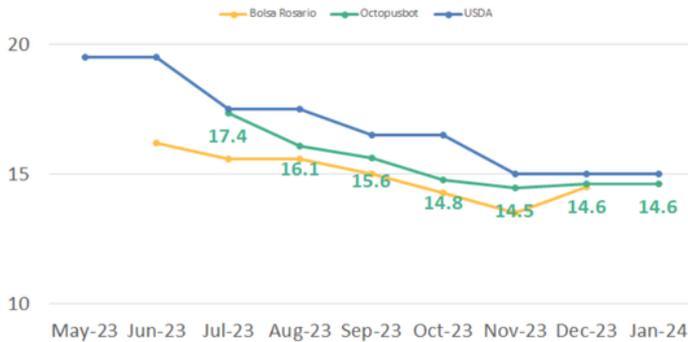
Crop	Country	2023/24				2022/23			
		MT	Leadtime ¹	%Difference	Agency	MT	Leadtime ¹	%Difference	Agency
Wheat	Argentina	14.6	2	0.8%	Bolsa Rosario	12	2	4.5%	Bolsa Rosario
	Australia	23.8	11	8.3%	ABARES - TBC	39.1	8	3.5%	ABARES - TBC
	Canada	30.0	3	0.4%	AAFC	30.9	2	10.0%	AAFC
	China	134.1	9	1.8%	USDA	133.5	11	3.1%	USDA
	EU-28	146.4	9	0.4%	COCERAL	147.9	10	1.2%	COCERAL
	India	109.1	5	1.3%	FAC	102	5	1.9%	FAC
	Russia	86.8	7	3.2%	JRC MARS	88.1	3	4.2%	JRC MARS
	Ukraine	22.0	6	1.9%	UGA	20	4	7.0%	UGA
	USA	47.5	7	3.6%	USDA	47.1	7	4.9%	USDA
Corn	Argentina	34.4	2	1.2%	Bolsa Cereales				
	Brazil	122.2		7.4%	Conab	107.9	9	4.7%	Conab
	China	268.8		6.9%	USDA	268.1	8	3.3%	USDA
	EU-28	60.1	5	0.0%	USDA	56.3		6.3%	Eurostat
	Ukraine	26.8		4.7%	UGA	31.7	4	17.4%	UGA
	USA	377.0	6	3.3%	USDA	342.5	9	1.2%	USDA
Soybean	Argentina	23.9	2	0.2%	MAGYP	42.2	4	0.1%	MAGYP
	Brazil	147.1		4.9%	Conab	126.1	8	0.4%	Conab
	Prgy/Urgy	10.3	5	5.3%	USDA				
	USA	111.1	5	1.9%	USDA	114	9	1.9%	USDA
Canola	Australia	6.0	4	5.6%	ABARES - TBC	9.1	4	9.9%	ABARES - TBC
	Canada	17.1	8	6.8%	AAFC	16.9	6	9.6%	AAFC
	EU-28	21.2	9	0.3%	USDA	18.2	7	6.3%	USDA
Barley	Argentina	4.0	6	8.3%	Bolsa Rosario	3.745	5	12.9%	USDA
	Australia	10.0	7	7.7%	ABARES - TBC	14.6	8	3.3%	ABARES - TBC
	Canada	7.7	5	13.2%	AAFC	8.5		14.9%	AAFC
	EU-28	55.7	8	2.3%	USDA	56.5		4.3%	USDA
	Russia	20.2	9	1.6%	USDA	19.9	5	7.4%	USDA
Total Average			6	3.8%		6	5.8%		
Total Median			6	3.2%		7	4.5%		

¹ Leadtime: quantity of months before the final estimate within a +/-5% range

* % Difference in absolute value

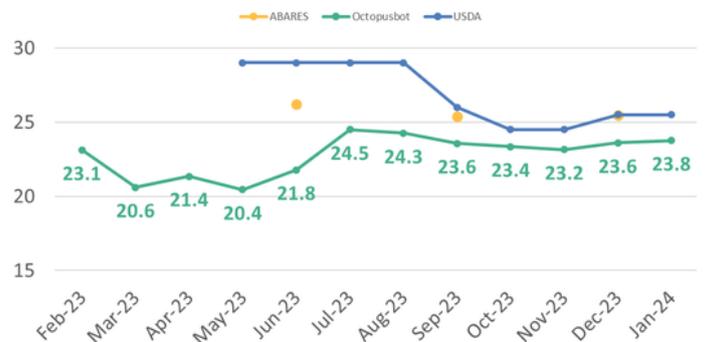
WHEAT

Argentina Wheat Production Estimate 2023/24 (MT)



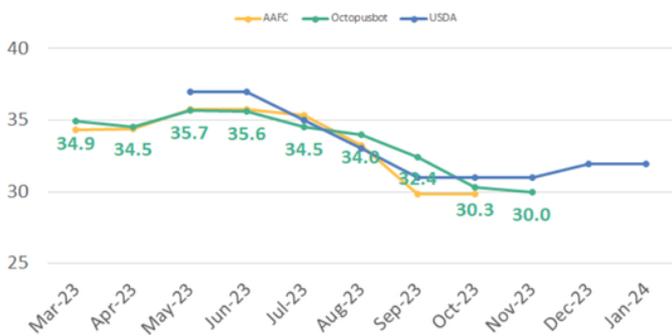
In August 2023, Octopusbot predicted that the season's production would trend lower than USDA and closely aligned with Bolsa Rosario, 3 months before the USDA and 4 months before the final estimate, with a difference of 0.8%

Australia Wheat Production Estimate 2023/24 (MT)



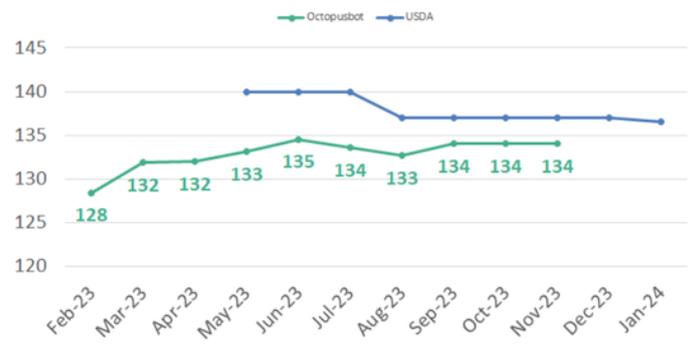
In February 2023, Octopusbot predicted that the season's production would trend much lower than 2022/23 and below 25 MT, 11 months before the final estimate and 7 months before the USDA and ABARES predictions.

Canada Wheat Production Estimate 2023/24 (MT)



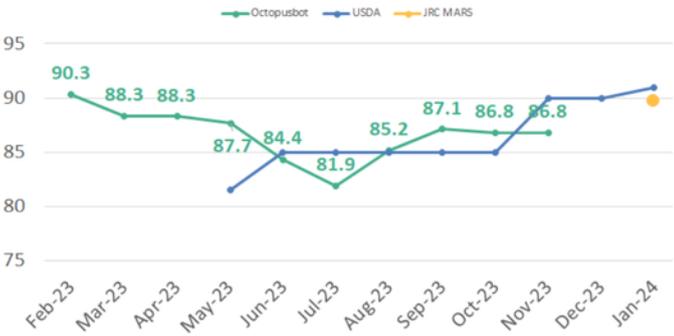
Octopusbot's prediction was closely aligned with AAFC and lower than USDA at the start and end of the season, with a three-month lead time before the final estimate and a difference of 0.4%.

China Wheat Production Estimate 2023/24 (MT)



In March 2023, Octopusbot predicted that the season's production would trend lower than the USDA's, 9 months before the final estimate and 5 months before the USDA, with a difference of -1.8% on the final estimate.

Russia Wheat Production Estimate 2023/24 (MT)



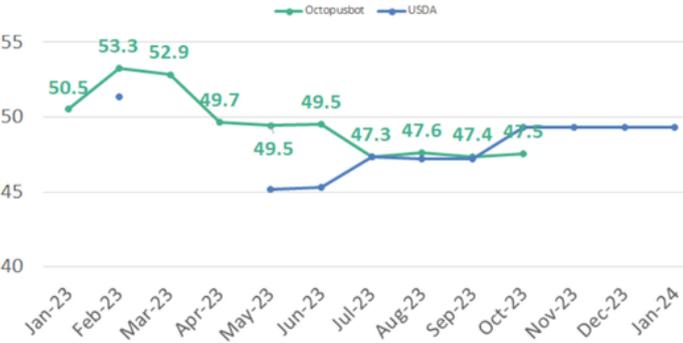
In February 2023, Octopusbot estimated the season's production to be around 90 MT. However, the estimate was revised downwards due to an inaccurate dry weather forecast. This estimate was within a 5% accuracy for 7 months and a final difference of 3.2%.

Ukraine Wheat Production Estimate 2023/24 (MT)

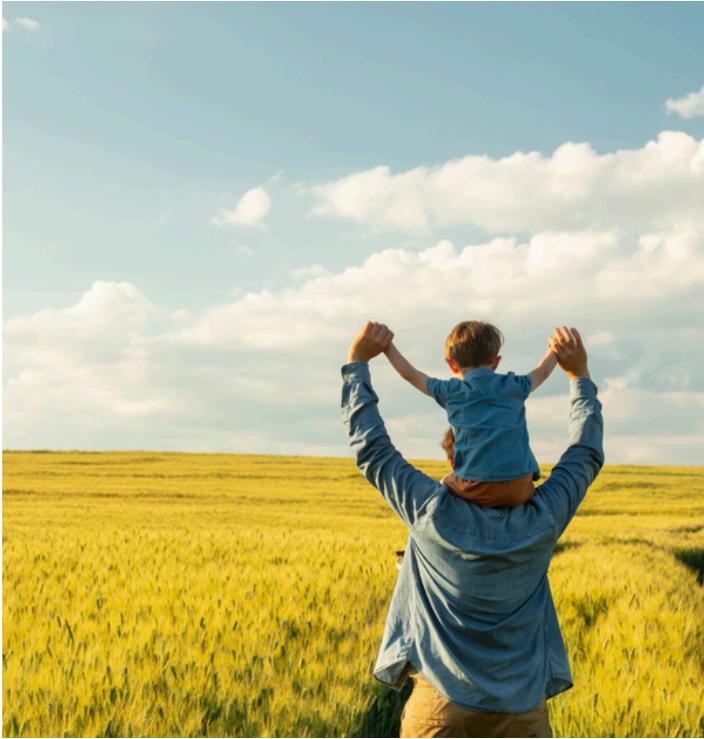


In May 2023, Octopusbot predicted the season's production trend, 6 months before the final estimate and 3 months before the USDA, with a difference of 1.9% on the final estimate.

USA Wheat Production Estimate 2023/24 (MT)

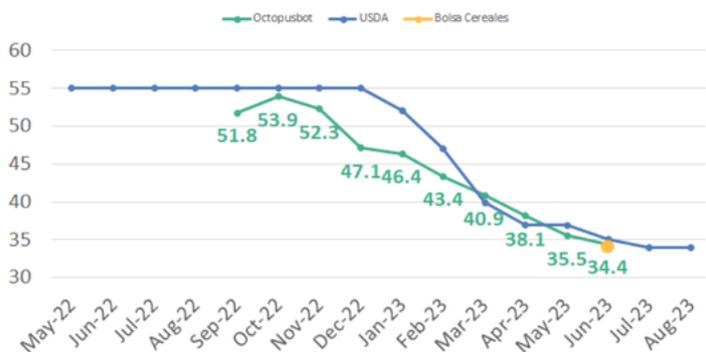


In January 2023, Octopusbot predicted the season's production trend with an increase in the estimate in February and March, driven by a positive weather outlook. This estimate was within the %5 range 7 months before the final estimate and 3 months before the USDA, with a difference of 3.6% on the final estimate.



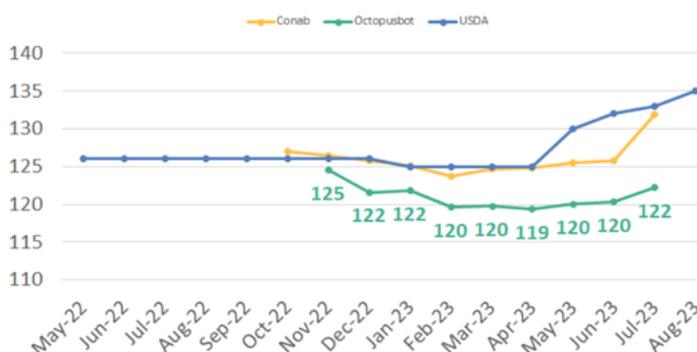
CORN

Argentina Corn Production Estimate 2022/23 (MT)



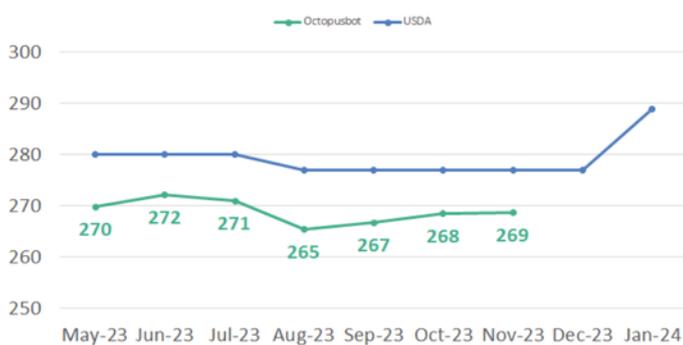
In September 2022, Octopusbot predicted the season's production trend would be lower than USDA's estimate. The estimate gradually decreased throughout the season, driven by inaccurate weather forecasts, within the %5 range 2 months before the final estimate and a difference of 1.2%

Brazil Corn Production Estimate 2022/24 (MT)



Octopusbot accurately predicted the largest Brazilian crop in history, driven by good median weather conditions. Nevertheless, this estimate was consistently lower than USDA and Conab, with a difference of 7.4% in the final estimate. This model will be revised for the next season.

China Corn Production Estimate 2022/23 (MT)



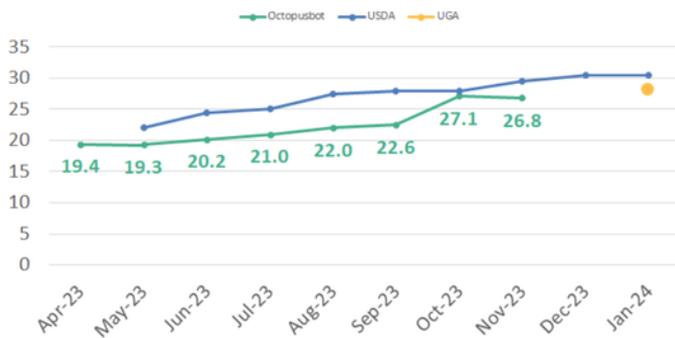
Octopusbot's prediction was consistently lower than USDA's, driven by below-the-median weather conditions and the highest crop being 277 MT. The estimate was 6.9% lower than the final estimate.

EU-28 Corn Production Estimate 2023/24 (MT)



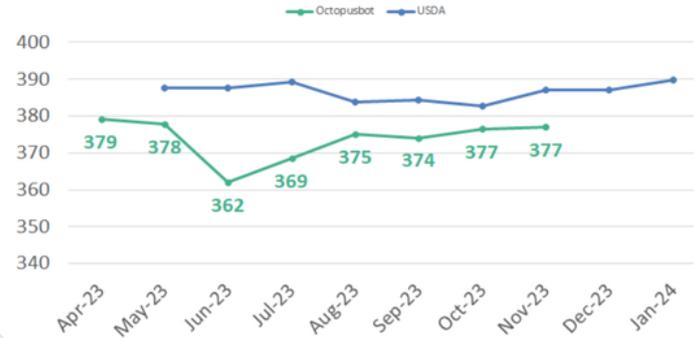
In July 2023, Octopusbot predicted that the season's production would trend lower than USDA's, 5 months before the final estimate, with a difference of 0%.

Ukraine Corn Production Estimate 2023/24 (MT)



In October 2023, Octopusbot's estimate increased, driven by an increment in planted areas, 2 months before the final estimate, with a difference of 4.7%.

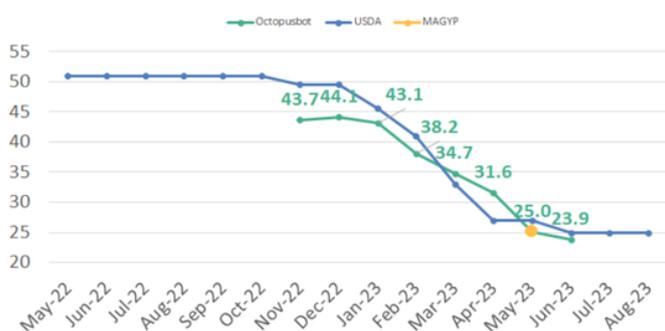
USA Corn Production Estimate 2023/24 (MT)



In April 2023, Octopusbot precisely predicted the season's production, coming within 5% of the actual figures seven months early. The June forecast was lowered due to expected dry conditions from a delayed El Niño, allowing for an improved forecast. The final prediction was 3.3% off the final estimate.

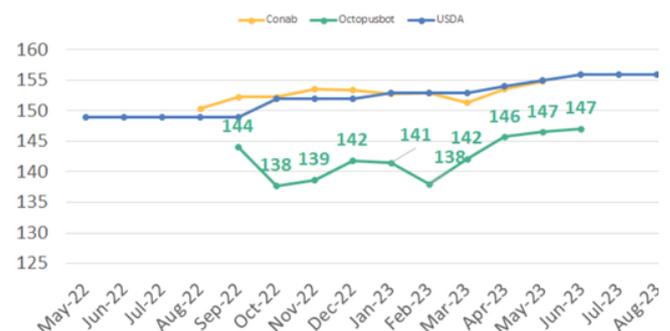
SOYBEAN

Argentina Soybean Production Estimate 2022/23 (MT)



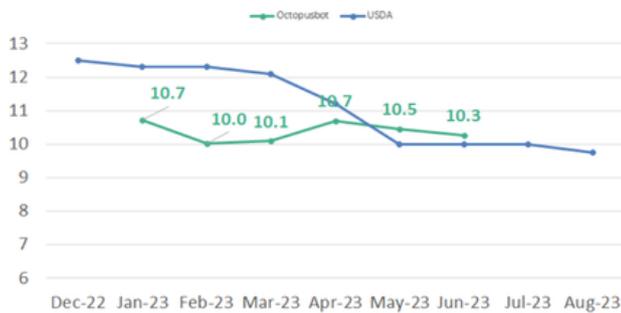
In November 2022, Octopusbot predicted the season's production trend would be lower than USDA's estimate. The estimate gradually decreased throughout the season, driven by an inaccurate weather forecast, within the 5% range 2 months before the final estimate and a difference of -0.2%.

Brazil Soybean Production Estimate 2022/23 (MT)



Octopusbot accurately predicted the largest Brazilian crop in history, driven by good median weather conditions. Nevertheless, this estimate was consistently lower than USDA and Conab, with a difference of 4.9% in the final estimate. This model will be revised for the next season.

Paraguay & Uruguay Soybean Production Estimate 2022/23 (MT)



USA Soybean Production Estimate 2023/24 (MT)

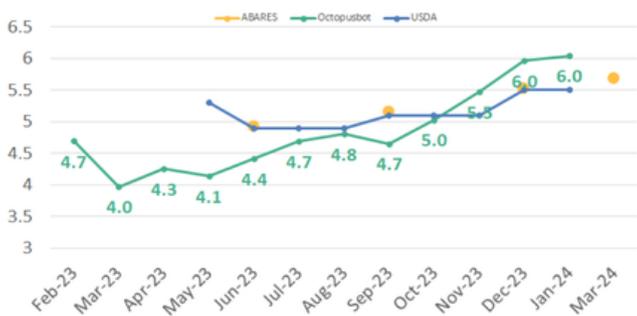


In January 2023, Octopusbot predicted the season's production trend, 5 months before the final estimate and 4 months before the USDA, with a difference of 5.3% on the final estimate.

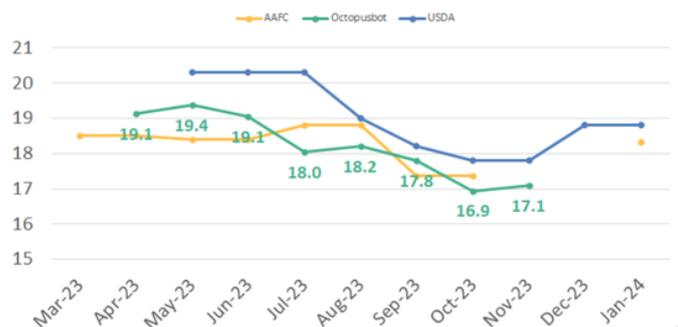
In June 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate. The estimate gradually decreased throughout the season, driven by an inaccurate weather forecast, within the 5% range 5 months before the final estimate and a difference of -1.9%.

CANOLA

Australia Canola Production Estimate 2023/24 (MT)



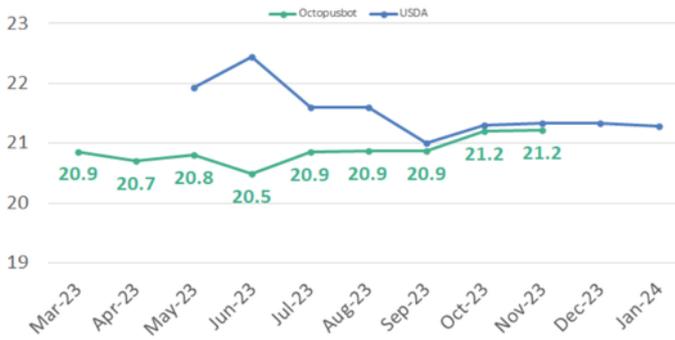
Canada Canola Production Estimate 2023/24 (MT)



In February 2023, Octopusbot predicted the season's production would be significantly lower than the previous year. The estimate gradually increased throughout the season, driven by the weather forecast converting higher than expected. The forecast was within the 5% range 7 months before the final estimate with a difference of 7.7%.

In April 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate 4 months before. The estimate gradually decreased throughout the season, driven by an inaccurate weather forecast, within the 5% range 8 months before the final estimate and a difference of 6.8%.

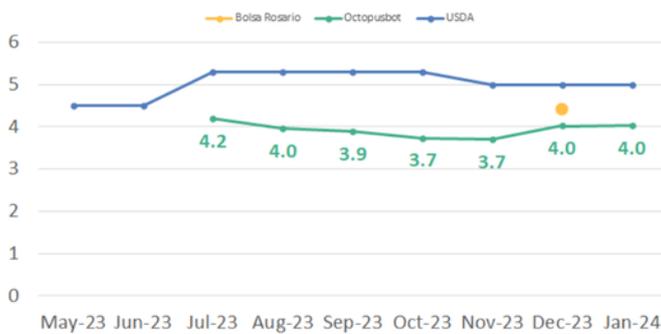
EU-28 Canola Production Estimate 2023/24 (MT)



In March 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate 6 months before. The forecast was within the 5% range 9 months before the final estimate with a difference of 0.3%.

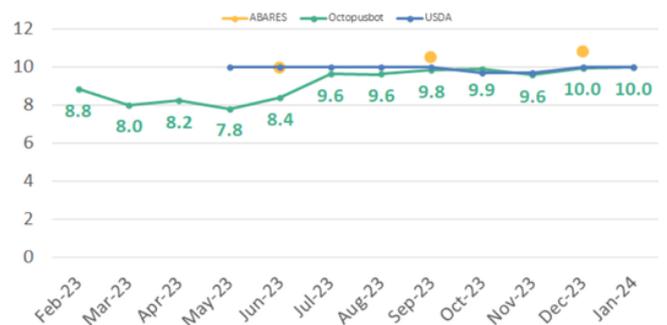
BARLEY

Argentina Barley Production Estimate 2023/24 (MT)



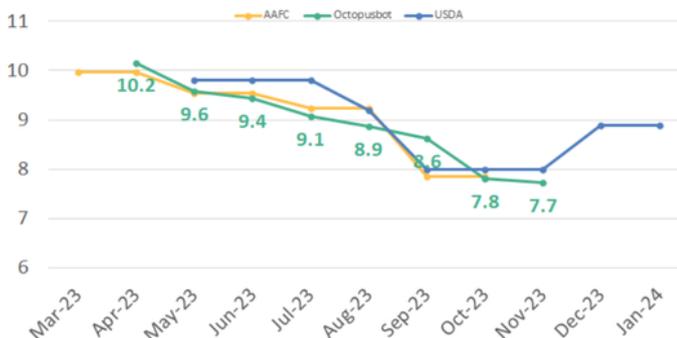
In July 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate 6 months before. The forecast was within the 5% range 6 months before the final estimate, with a slight decrease for 3 months bouncing back in Dec-23 and a difference of 8.3% with the final estimate.

Australia Barley Production Estimate 2023/24 (MT)



In April 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate 4 months before. The estimate gradually decreased throughout the season, driven by an inaccurate weather forecast, within the end range 8 months before the final estimate and a difference of 6.8%.

Canada Barley Production Estimate 2023/24 (MT)



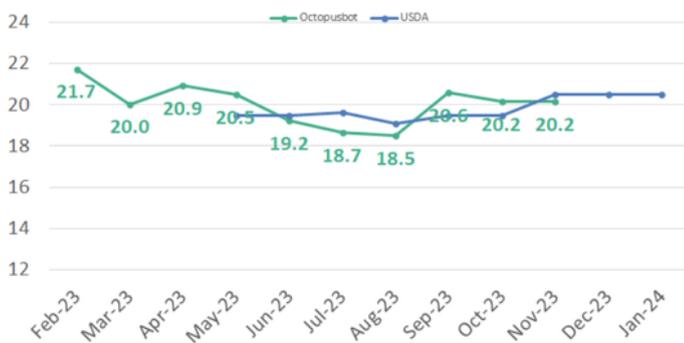
In May 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate one month before. The estimate gradually decreased throughout the season, driven by an inaccurate weather forecast, and being within the 5% range for 4 months from Jun-23 to Sep-23, with a difference of 13.2% in the final estimate.

EU-28 Barley Production Estimate 2023/24 (MT)



In March 2023, Octopusbot predicted the season's production trend would be lower than USDA's estimate four months before. The estimate slightly decreased throughout the season, remaining within the 5% range for 8 months before the final estimate, with a difference of 2.3%.

Russia Barley Production Estimate 2023/24 (MT)



In February 2023, Octopusbot predicted the season's production trend 4 months before the first USDA's estimate. The forecast remained within the 5% range for 9 months before the final estimate, with a final difference of 1.6%.



“We consistently use Octopusbots analysis of supply and demand to shape our opinion of where the market is going to be in 1/2/12/26/40 weeks”
 – Octopusbot Customer, NSW Grain Broker

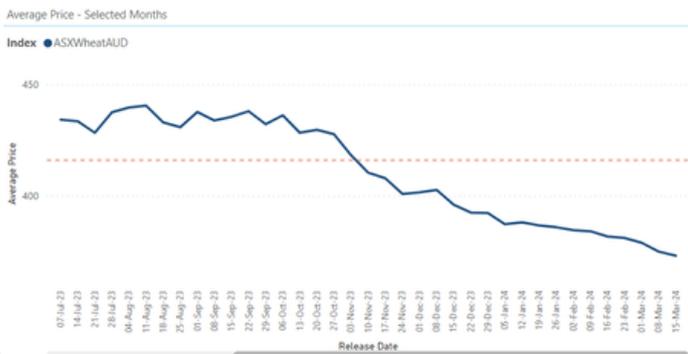
Price Estimates



ASX WHEAT

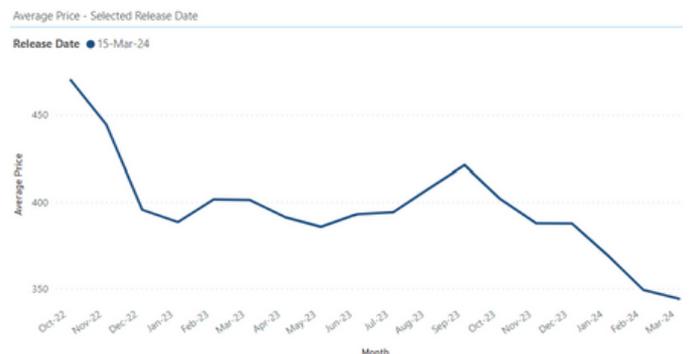
Beginning in August 2023, Octopusbot's seasonal price forecast for October 2023 through March 2024 began to mirror the downward market trend. This trajectory persisted into March 2024, with a pronounced decline in the final two months. Octopusbot accurately anticipated a market recovery following the price volatility experienced in December 2023. The forecasts were remarkably close to actual figures, showing an average deviation of \$40, translating to an 11% difference.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price ASX Wheat Estimates Oct-23 to Mar-24.

Price Estimates Season 2023/24 - Weekly Release

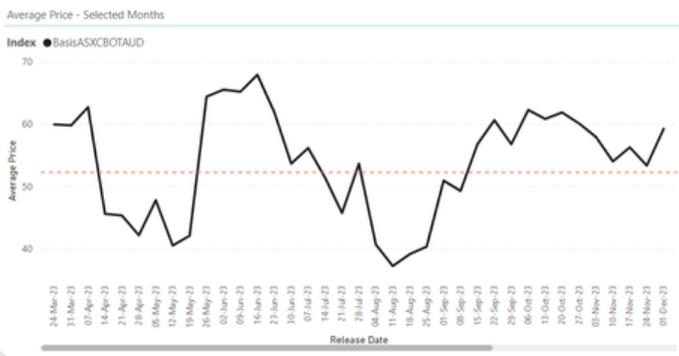


Monthly Average Actual Price ASX Wheat.

ASX WHEAT VS. CBOT WHEAT BASIS

Octopusbot's forecast predicted a CBOT vs. ASX wheat basis of **\$60/tonne in March 2023**. At the time, the market had an **actual basis price of around \$0**. Despite this, Octopusbot's AI accurately predicted the trend of a rising basis, and the market only reflected this price **five months later, in August 2023**.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price ASX CBOT Wheat Basis Estimates in \$AUD.

Price Estimates Season 2023/24 - Weekly Release



Monthly Average Actual Price ASX CBOT Wheat Basis Actual in \$AUD.

ASX BARLEY

In July 2023, Octopusbot's forecast for the October 2023 to March 2024 season anticipated a price surge exceeding \$360, accurately predicting the market's ascent to this level by September 2023, a full two months in advance. Following this period, from October 2023 onwards, Octopusbot's projections adjusted to reflect a declining trend in the market.

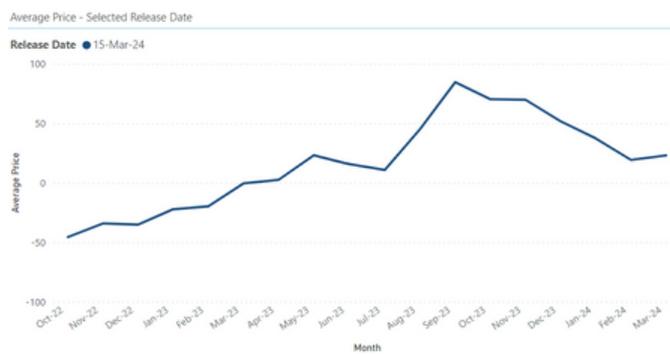
This trend continued until March 2024, highlighted by a notable dip in the market between December 2023 and February 2024. Octopusbot precisely predicted a rebound after the market fluctuations. The accuracy of these forecasts was demonstrated by an average difference of \$38, equivalent to a 12% variation from the actual average market prices.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price ASX Barley Estimates Oct-23 to Mar-24 in \$AUD/Ton.

Price Estimates Season 2023/24 - Weekly Release

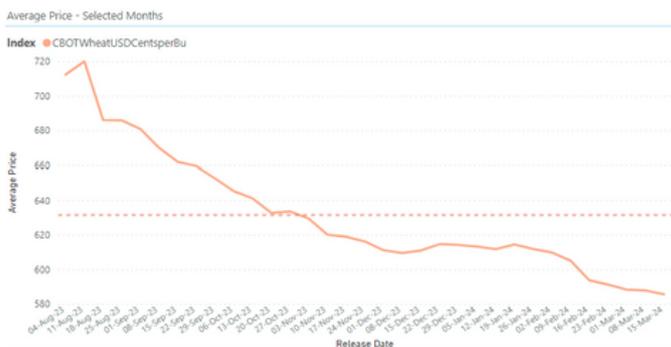


Monthly Average Actual Price ASX Barley in \$AUD/Ton.

CBOT WHEAT

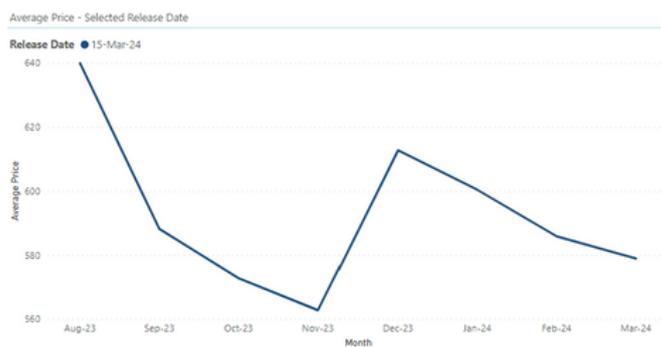
In August 2023, Octopusbot's average price estimate for the season (Oct-23 - Mar-24) started decreasing after a temporary increase at the end of July. Octopusbot's price forecast accurately predicted that the market would bounce back after the price drop in November 2023. The average difference was \$47 USDCent/Bu, with a difference of 8.1%.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price CBOT Wheat Estimate Oct-23 to Mar-24 in \$USDCents/Bu.

Price Estimates Season 2023/24 - Weekly Release

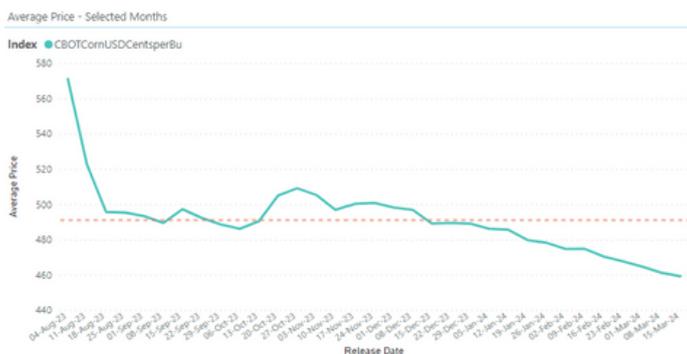


Monthly Average CBOT Wheat Actual in \$USDCents/Bu.

CBOT CORN

In August 2023, Octopusbot's average price estimate for the season (Oct-23 - Mar-24) started decreasing, aligned with the market. In February 2024, Octopusbot's price forecast accurately predicted that the market would bounce back after the price drop. The average difference was \$31 USDCent/Bu, with a difference of 6.7%.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price CBOT Corn Estimate Oct-23 to Mar-24 in \$USDCents/Bu.

Price Estimates Season 2023/24 - Weekly Release

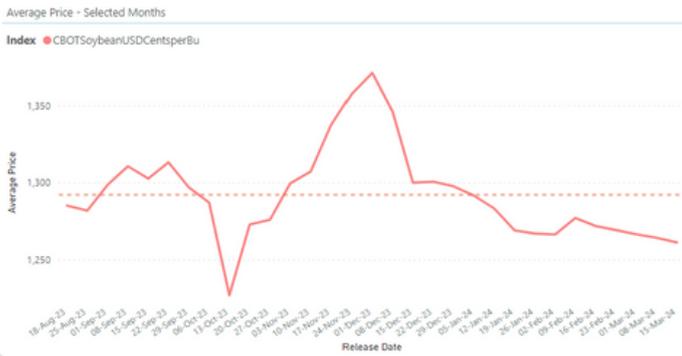


Monthly Average CBOT Corn Actual in \$USDCents/Bu.

CBOT SOYBEAN

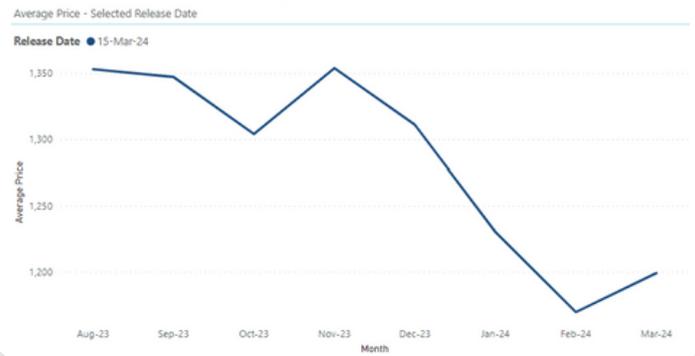
In August 2023, Octopusbot's average price estimate for the season (Oct-23 - Mar-24) predicted a reduction below \$1,300, 2 months before the market reached this level in October 2023. The average difference was \$32 USDCent/Bu, with an difference of 2.6%.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price CBOT Soybean Estimate Oct-23 to Mar-24 in \$USDCents/Bu.

Price Estimates Season 2023/24 - Weekly Release

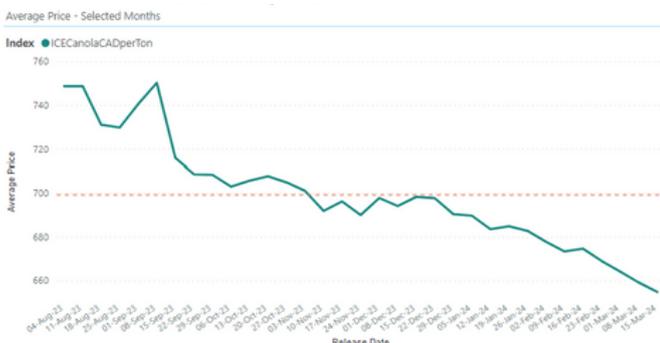


Monthly Average CBOT Soybean Actual in \$USDCents/Bu.

ICE CANOLA

In August 2023, Octopusbot's average price estimate for the season (Oct-23 - Mar-24) predicted a reduction below \$740, 1 month before the market reached this level in September 2023. In February 2024, Octopusbot's price forecast accurately predicted that the market would bounce back after the price drop. The average difference was \$46 CAD/Ton, or 7.1%.

Price Estimates Season 2023/24 - Weekly Release



Weekly Octopusbot Average Price ICE Canola Estimate Oct-23 to Mar-24 in \$CAD/Ton.

Price Estimates Season 2023/24 - Weekly Release

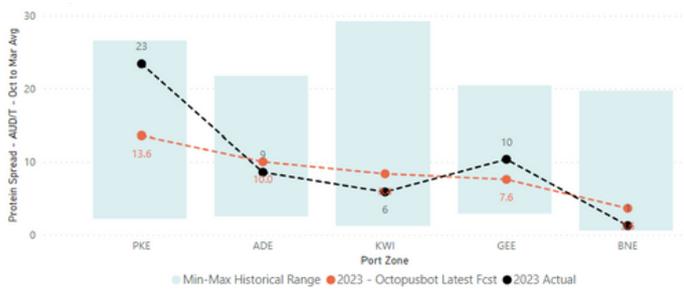


Monthly Average ICE Canola Actual in \$CAD/Ton.

AU Protein and Port Zone Spreads



Protein Spread H2-APW1 Latest Forecast 23/24



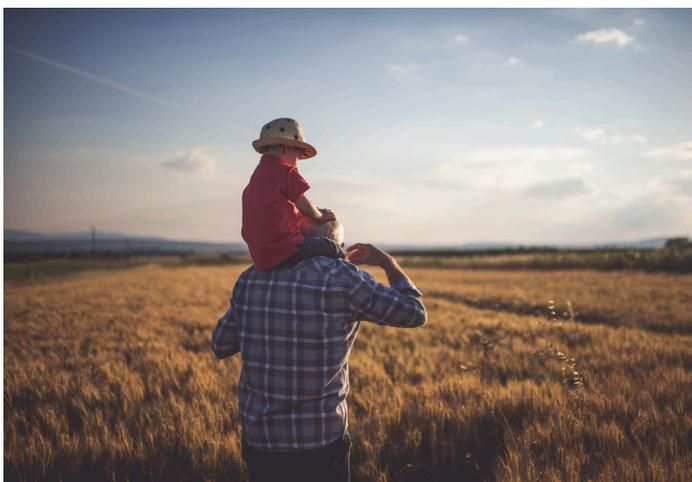
Protein Spread ASW-APW1 Latest Forecast 23/24

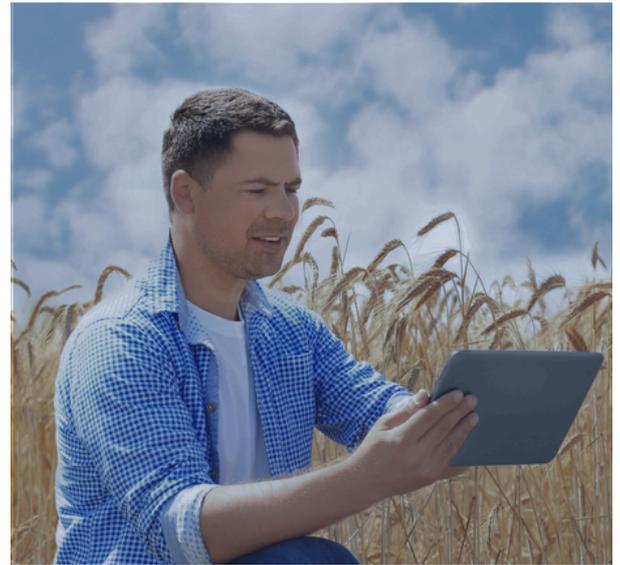
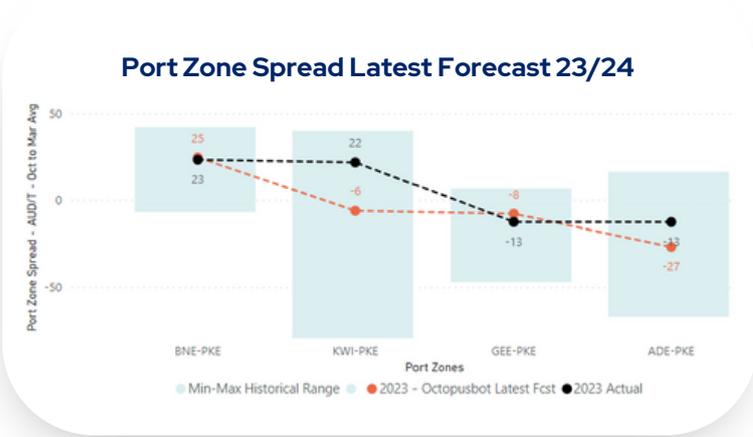


Octopusbot's forecast predicted an average protein spread for Port Kembla of \$13 from April to October 2023, when the actual price was around \$5. After October, the actual price increased while Octopusbot's forecast remained around \$13. The predictions for the other ports remained steady since April 2023, accurately predicting the actual price of the season 6 months ahead of harvest.

Octopusbot's forecasts estimated the average protein spread for Port Geelong to be approximately \$-12 from April to October 2023. In reality, the average price hovered around \$-4 during this period. The actual price declined post-October, whereas Octopusbot's prediction stayed consistent at around \$-12. For Kwinana, the forecast remained stable throughout the season at an approximate \$-35, marking a \$10 discrepancy from the actual figures between April and October 2023. Following this period, actual prices rose due to drier weather conditions, widening the gap with Octopusbot's estimates.

Predictions for the remaining ports have been consistent since April 2023, successfully forecasting the actual prices for the season six months before the harvest.





Octopusbot's predictions indicated an average port zone spread of \$-6 for KWI-PKE starting from June 2023. Beyond November, the actual price rose, while Octopusbot's estimates continued to hover around \$-6. For the other ports, forecasts was consistent since April 2023, closely aligning with the actual prices for the season, six months before the harvest.

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“The Pricing models help to get some gauge on the impacts of different scenarios, and form a view on the markets with some confidence”
 – Octopusbot Customer, WA Grain Broker

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“In Mid Dec23, CBOT was at \$550 and Octopusbot analysis showed that we could see this back to \$620 within a few weeks. This happened, and we successfully sold wheat into this stronger market.”
 – Octopusbot Customer, NSW Grain Broker

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“Octopusbot Global Productions helps us get some views about the world's supply and demand without us running multiple spreadsheets. Also, having someone who understands the data well helps us understand where issues may affect the supply or demand side.”
 – Octopusbot Customer, WA Grain Broker