

Opportunities for canola in the sustainable-fuel future

IRC September 2023



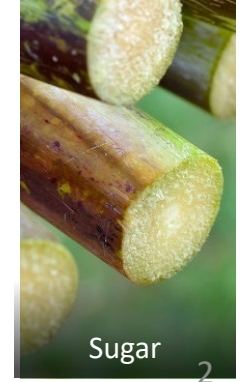
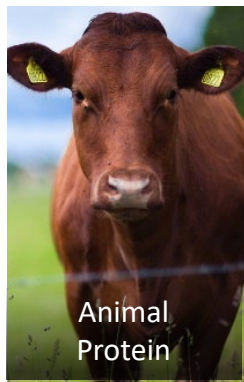
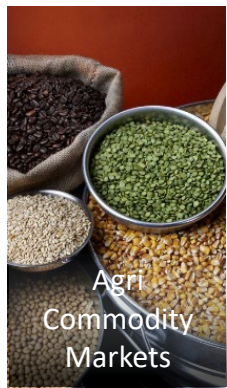
Dennis Voznesenski, Senior Grains & Oilseeds analyst, RaboResearch Australia



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a better world
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Set the scene for the global canola market

Look into near term production prospects

Answer whether canola demand may become a thing of the past...

What markets are most relevant for canola?



Rabobank



Source: USDA, Rabobank 2023

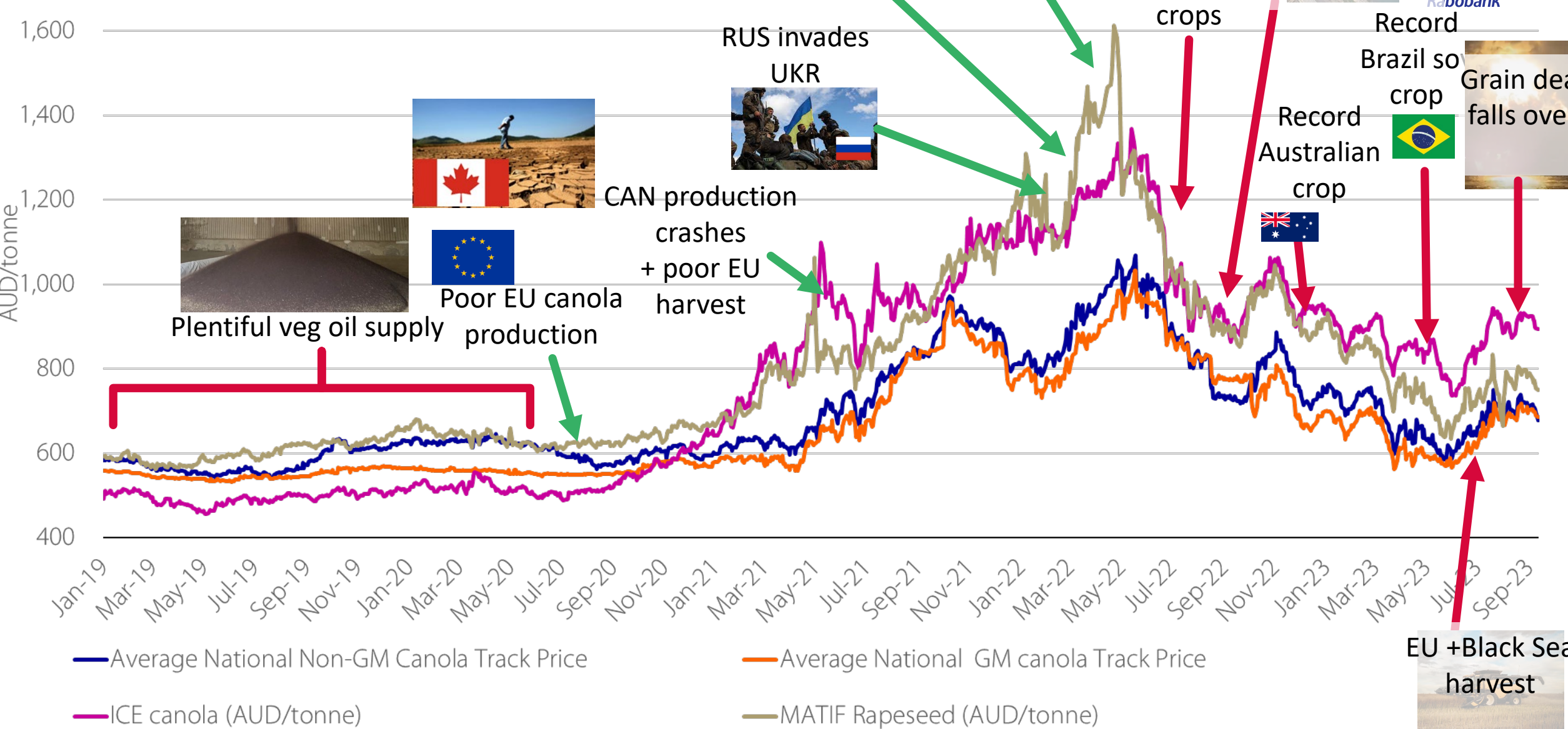
*5 year average data



How did we get to current canola prices?



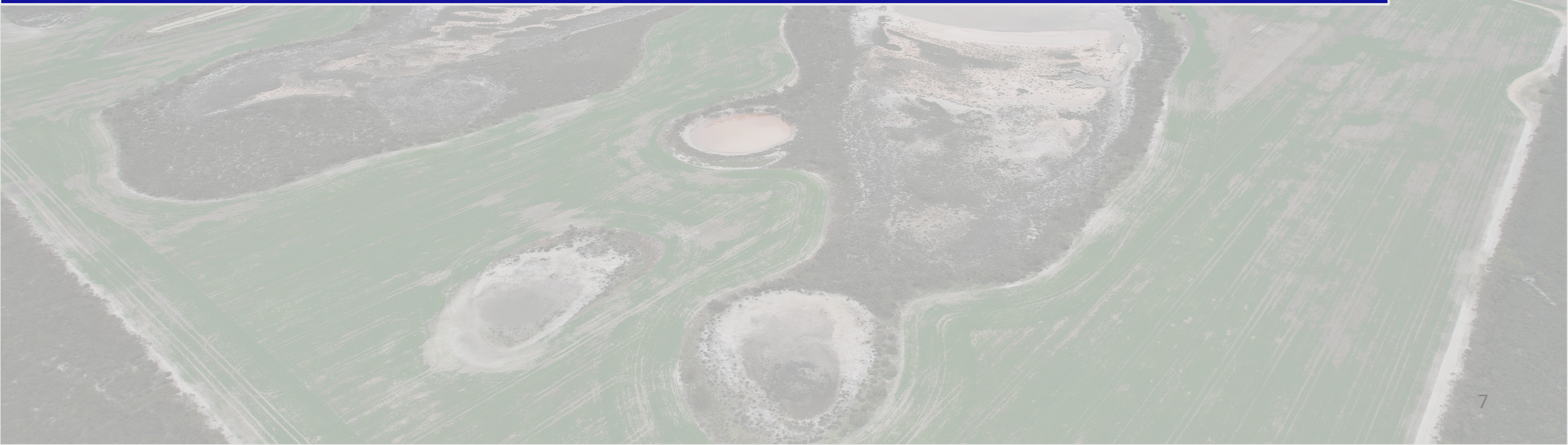
Roller coast ride



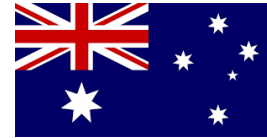
Source: USDA, Rabobank 2023



Expectations for upcoming canola harvests

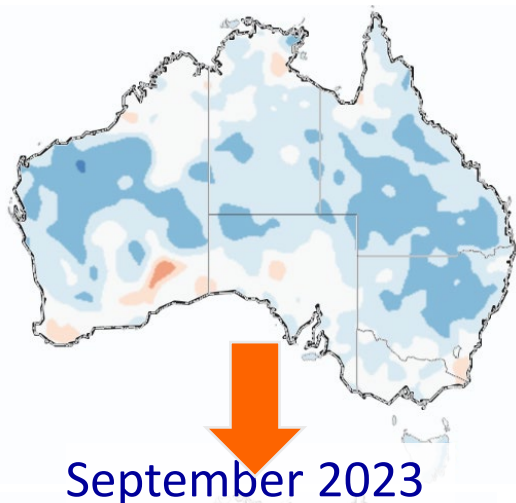


Australia: down but not out

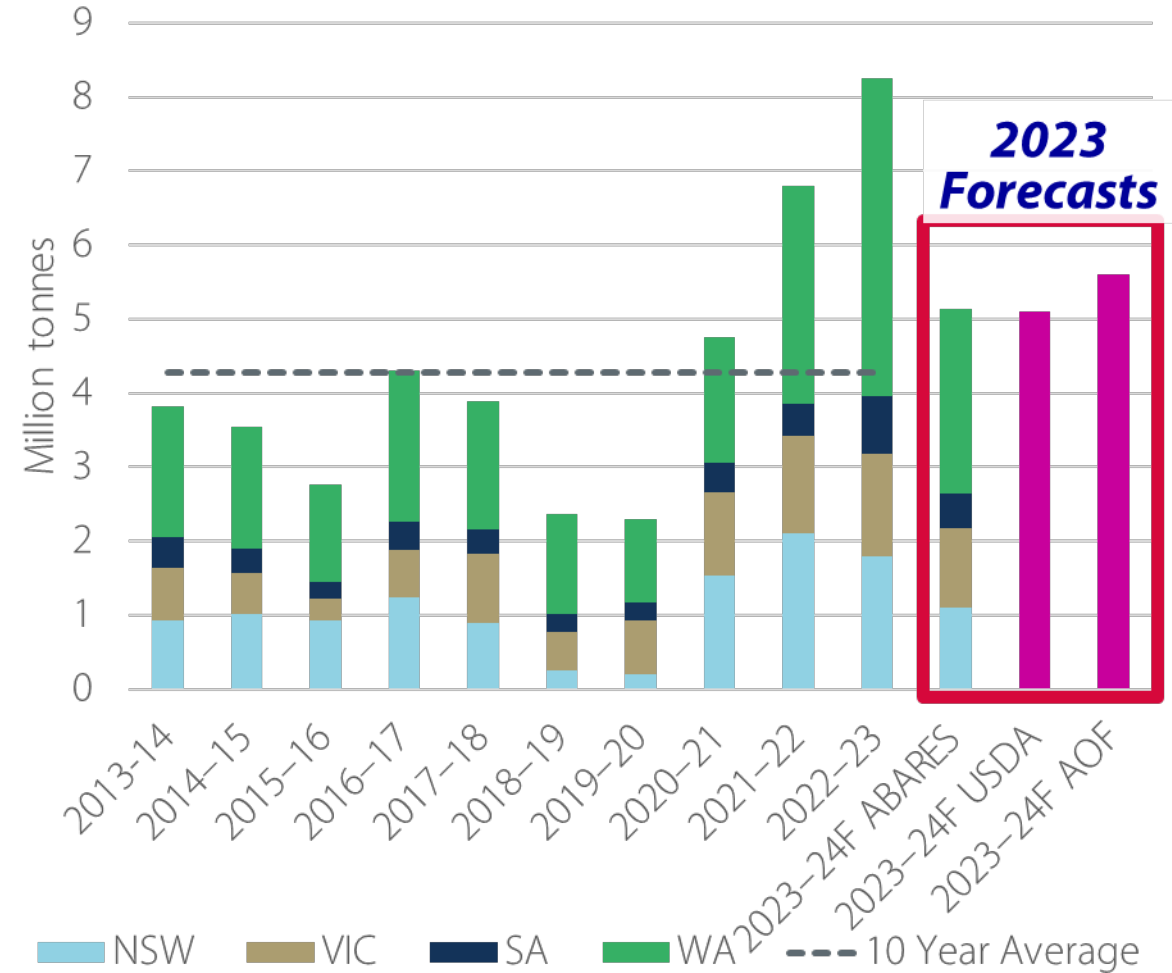
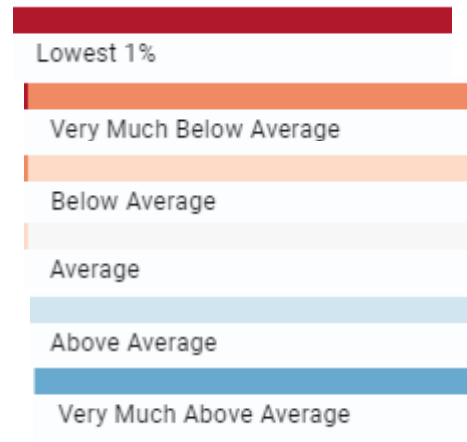
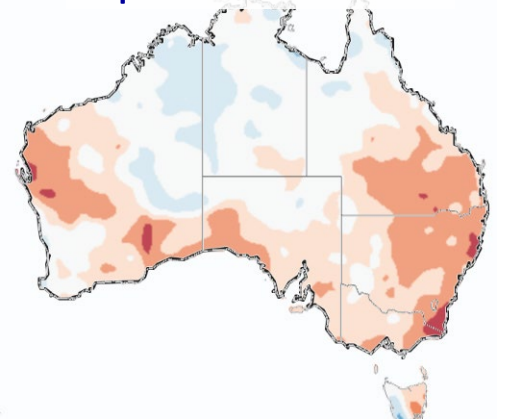


AUS Root Zone Soil Moisture

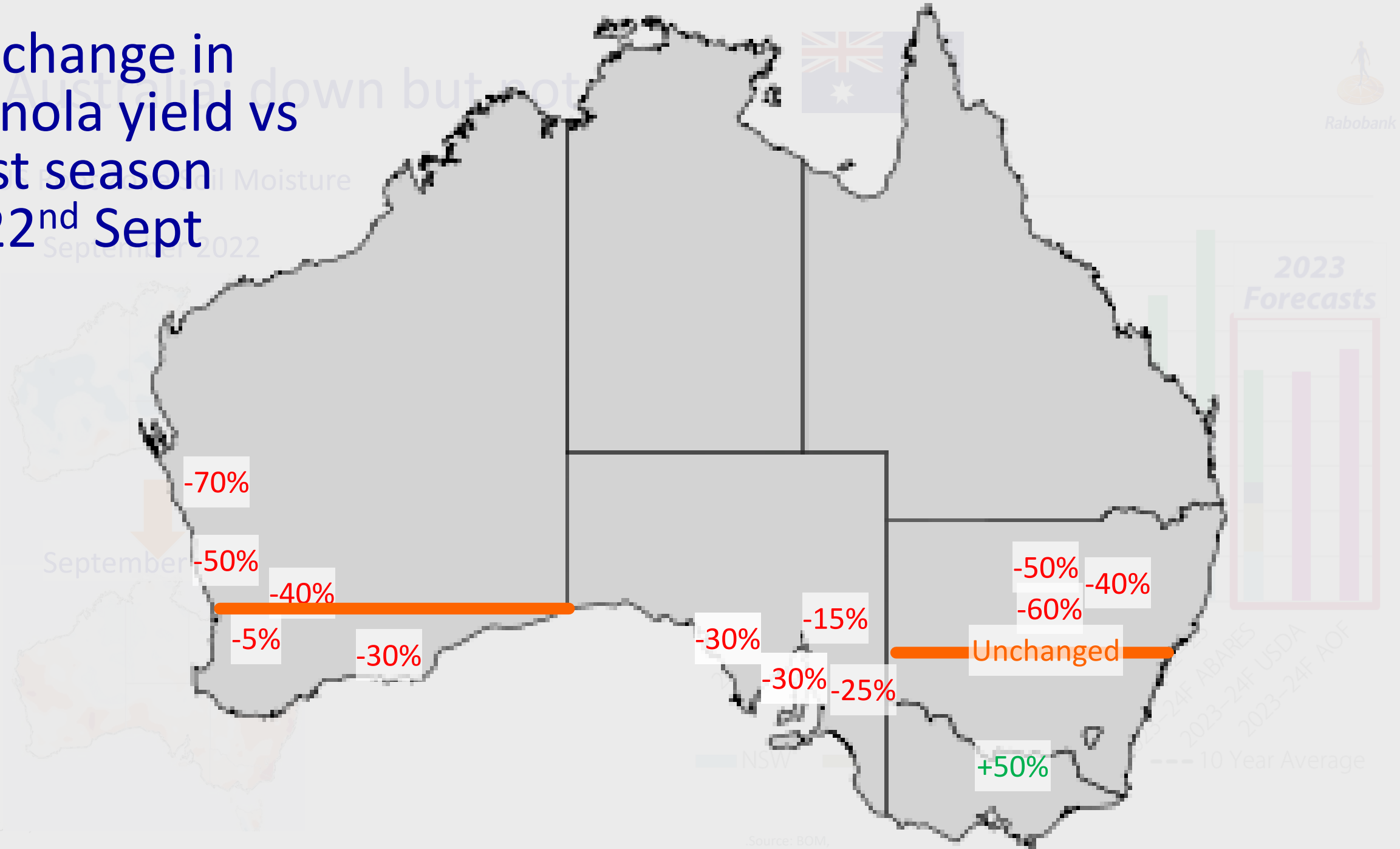
September 2022



September 2023



% change in canola yield vs last season - 22nd Sept



-70%

-50%

-40%

-5%

-30%

-30%

-30%

-15%

-25%

-50%

-60%

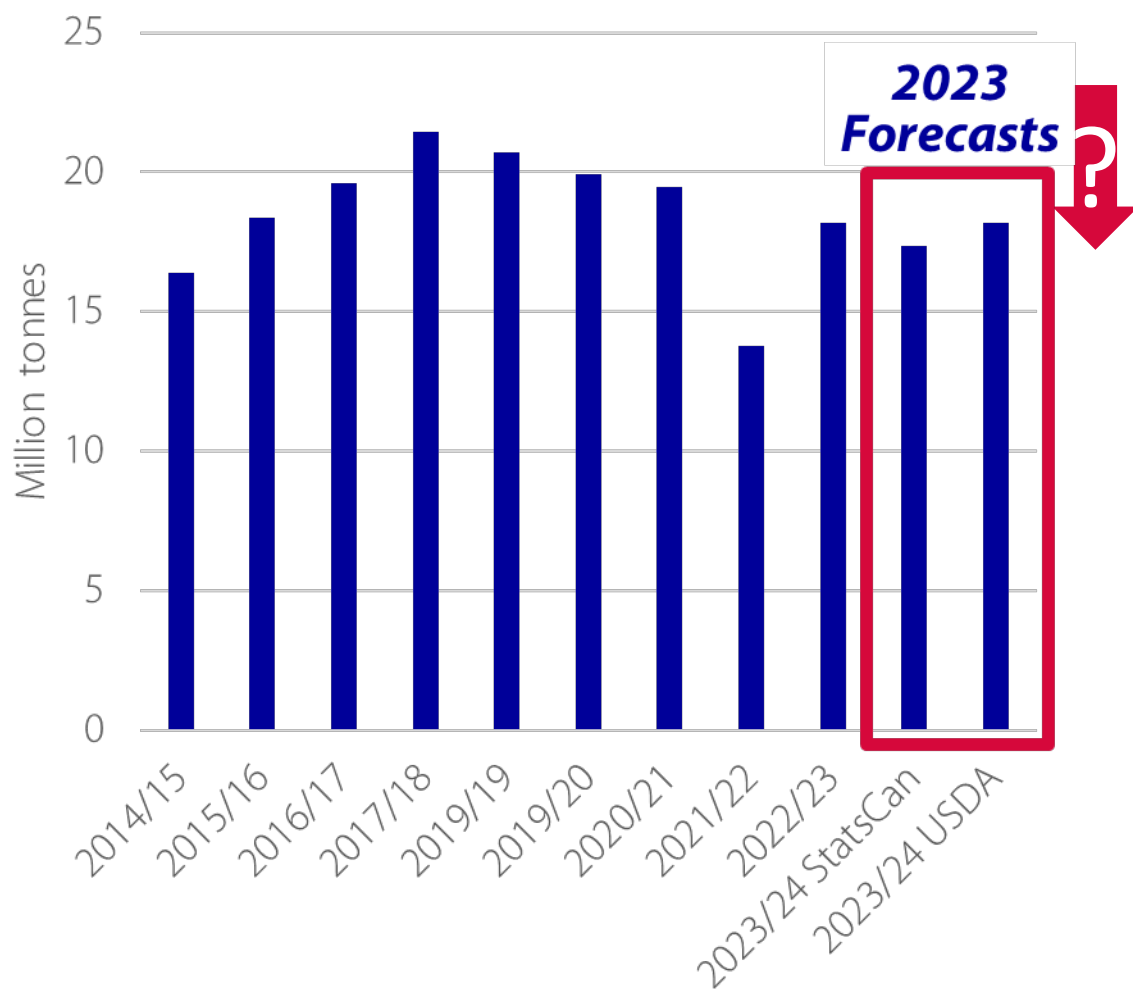
-40%

Unchanged

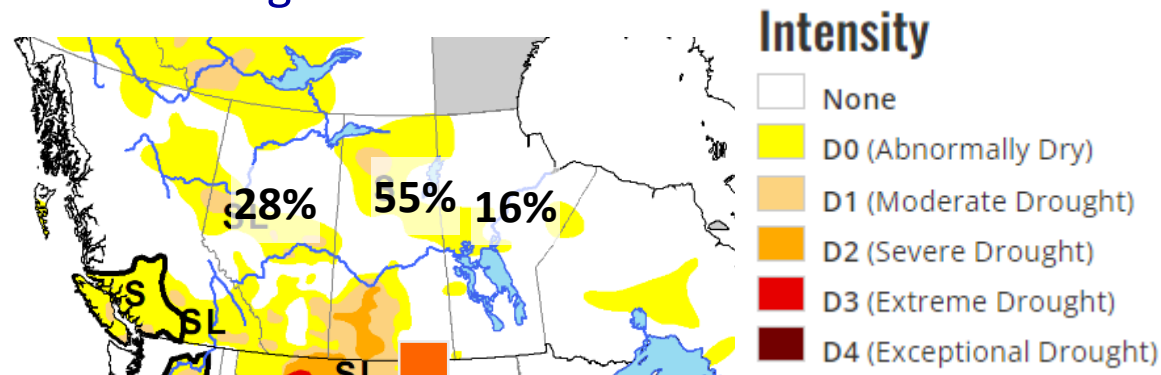
+50%



Canada: more production cuts to come?

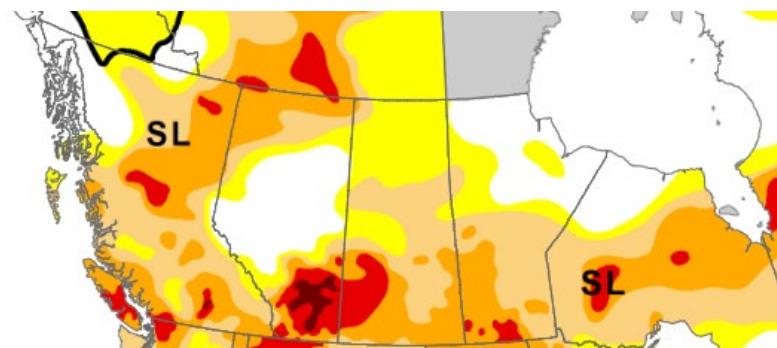


Canada drought monitor August 2022



Source: UNL

August 2023

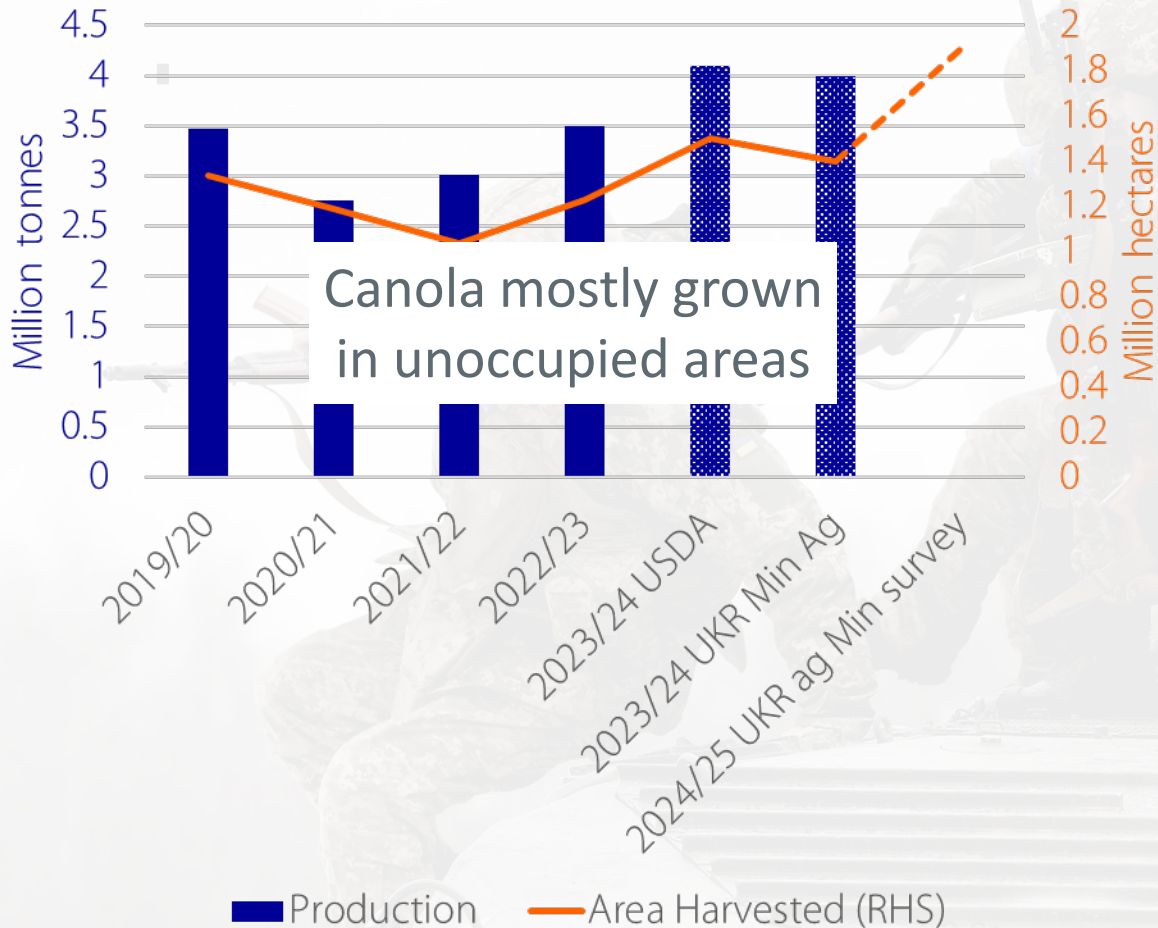


.Source: BOM,

Ukraine's canola production on the rise

Production still high

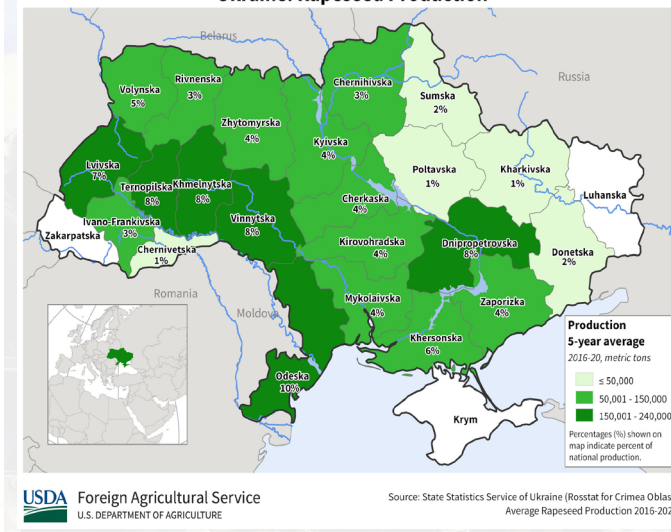
Why is area for rapeseed so high?
Location + freight factor



Areas of Russian military control in Ukraine



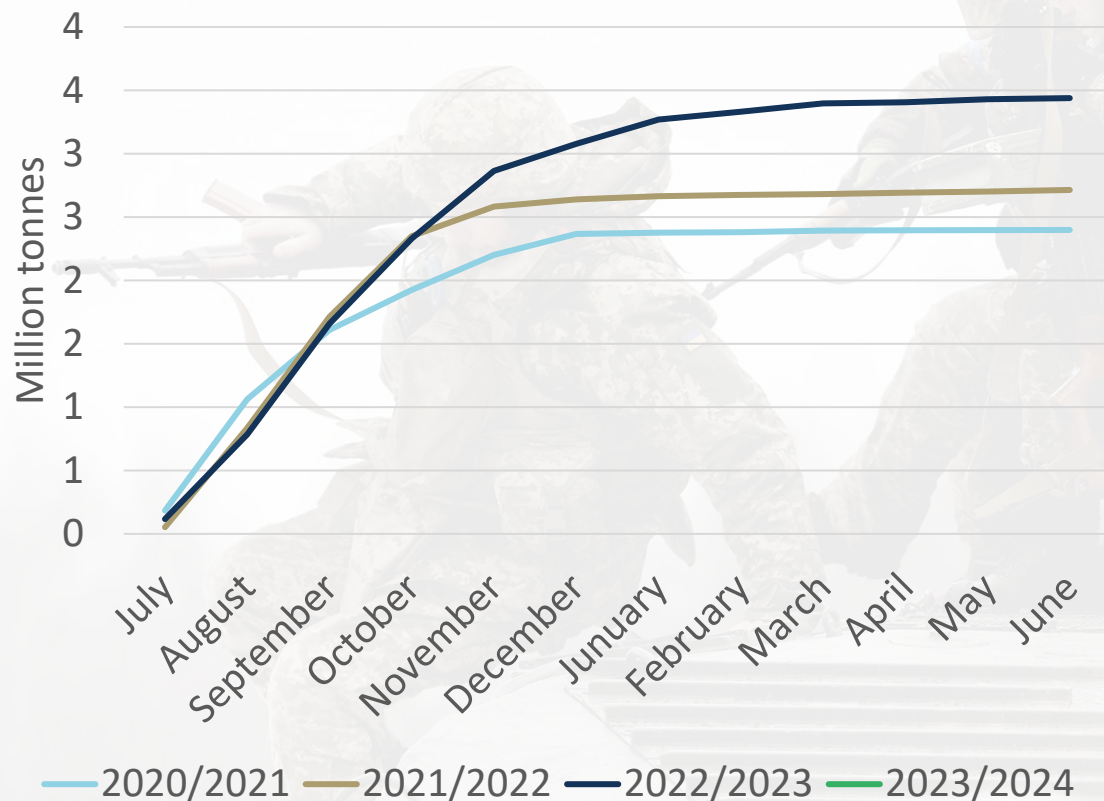
Ukraine: Rapeseed Production



Ukraine's canola exports remain strong

Exports above pre-war levels

Cumulative UKR canola exports



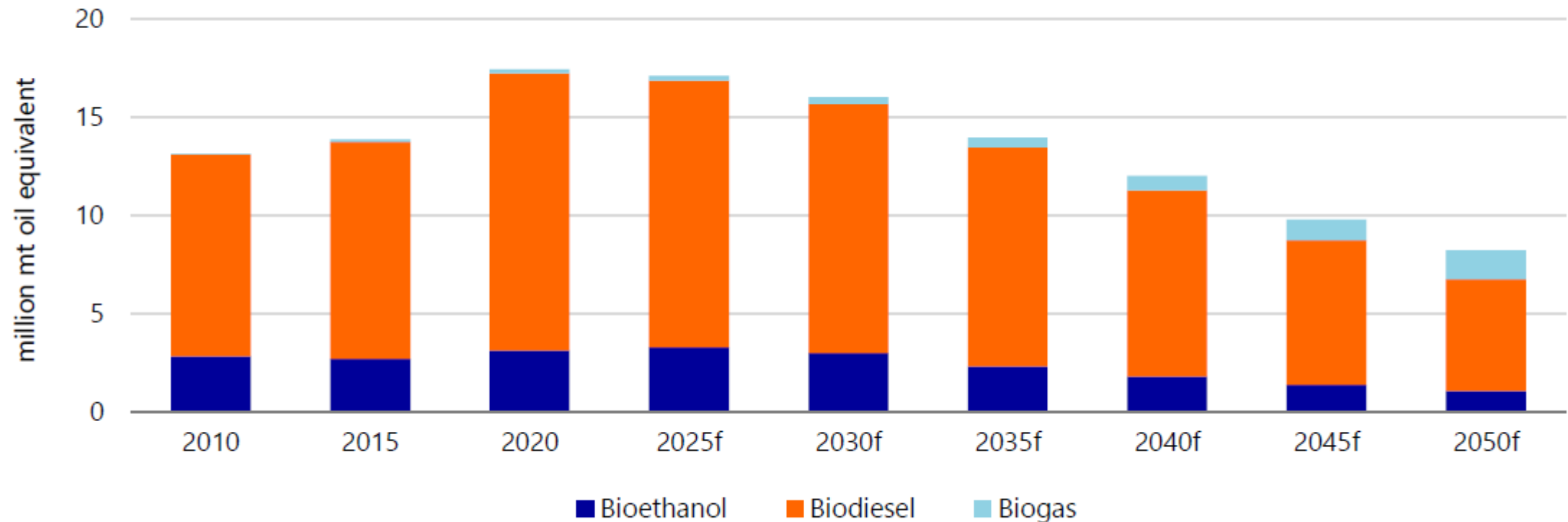
Will canola demand ever become a thing of the past?

BIO



Europe's Biofuel demand has been strong but will soften as we move forward

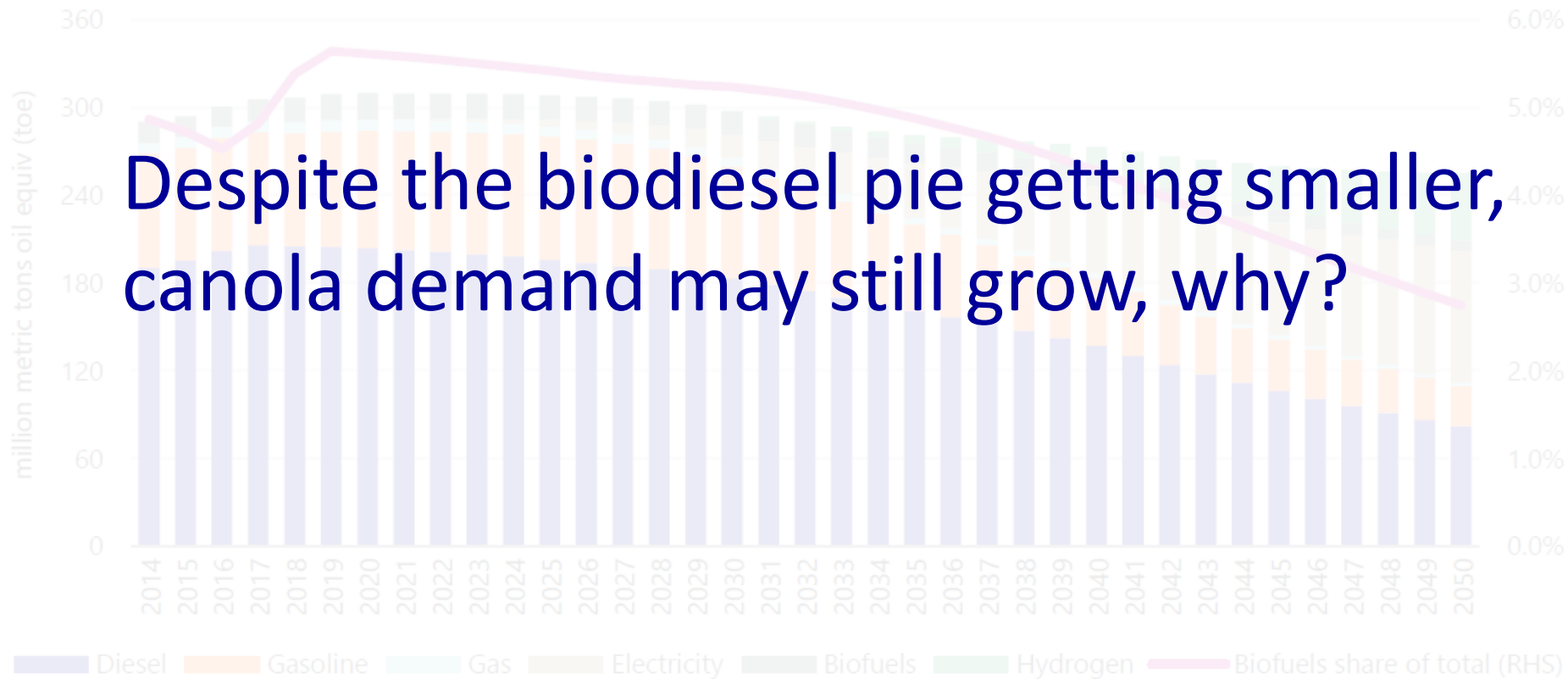
Figure 15: EU biofuels demand, 2010-2050f



Source: Eurostat, Rabobank 2021

Why? Because electric is gradually taking over the roads

Figure 14: EU fuel demand forecast, 2014-2050



Despite the biodiesel pie getting smaller, canola demand may still grow, why?

Source: Eurostat, Rabobank 2021

Reuters

EU countries approve 2035 phaseout of CO2-emitting cars

European Union countries gave final approval on Tuesday to a landmark law to end sales of new CO2-emitting cars in 2035, after Germany won...

29 Mar 2023



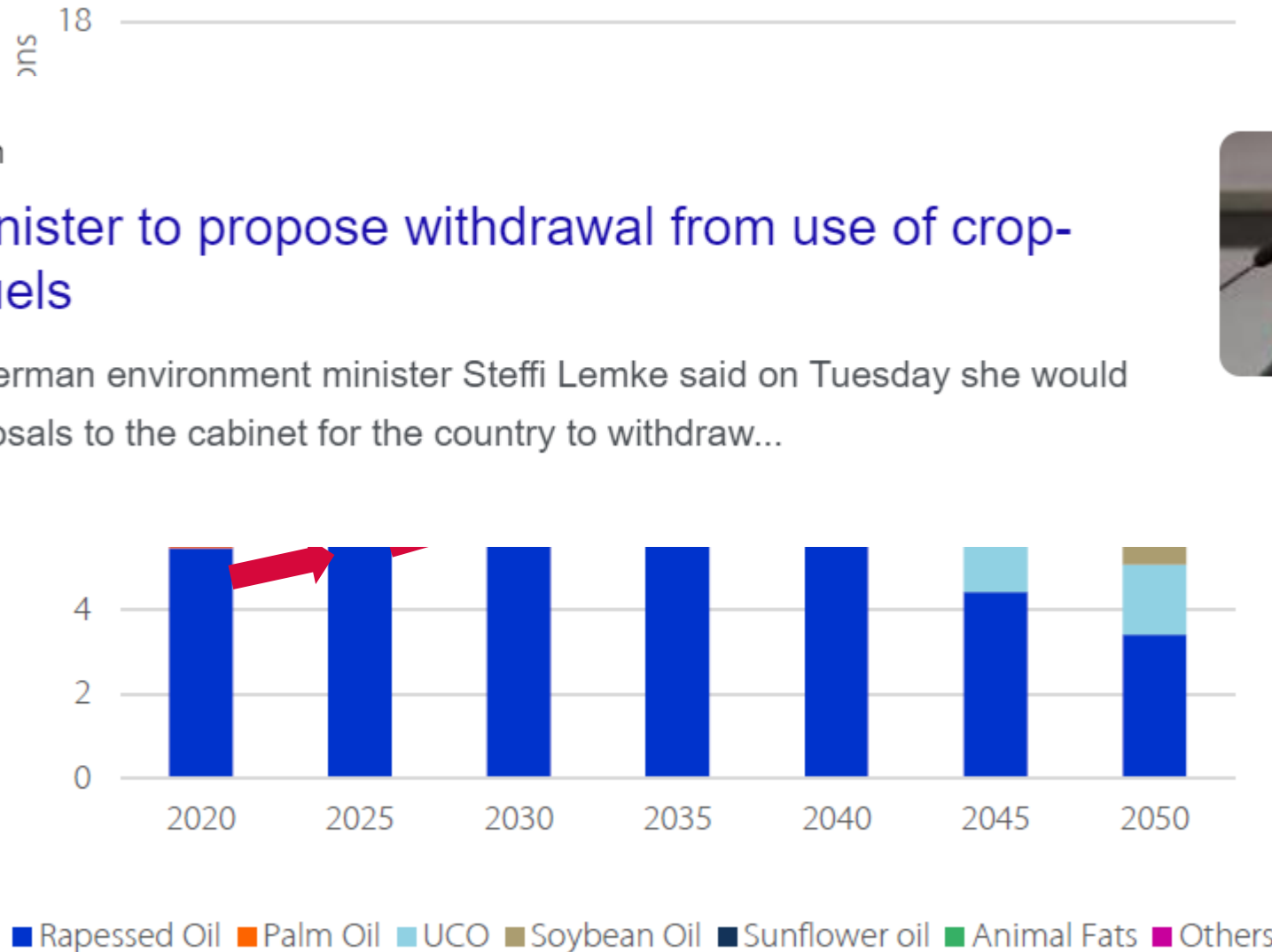
Because palm oil is largely being phased out by 2030

en Euronews.com

German minister to propose withdrawal from use of crop-based biofuels

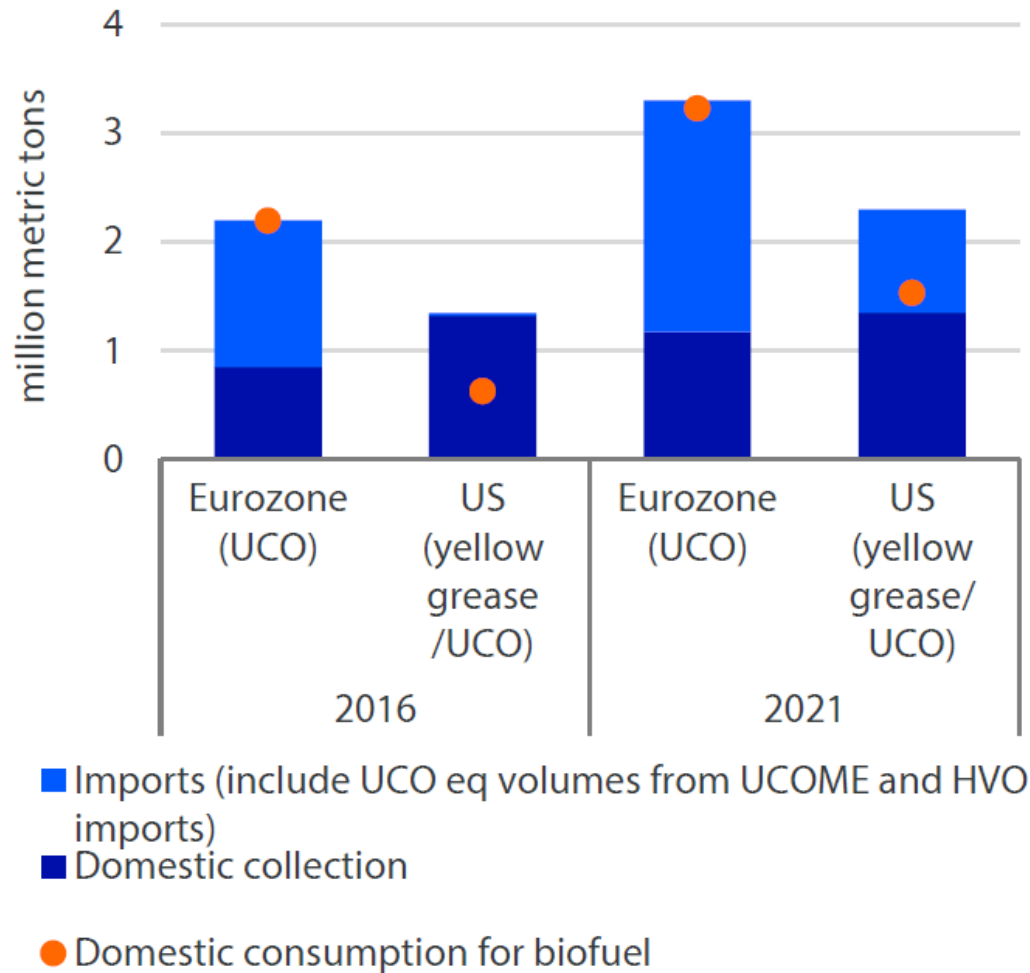
HAMBURG – German environment minister Steffi Lemke said on Tuesday she would soon send proposals to the cabinet for the country to withdraw...

17 Jan 2023

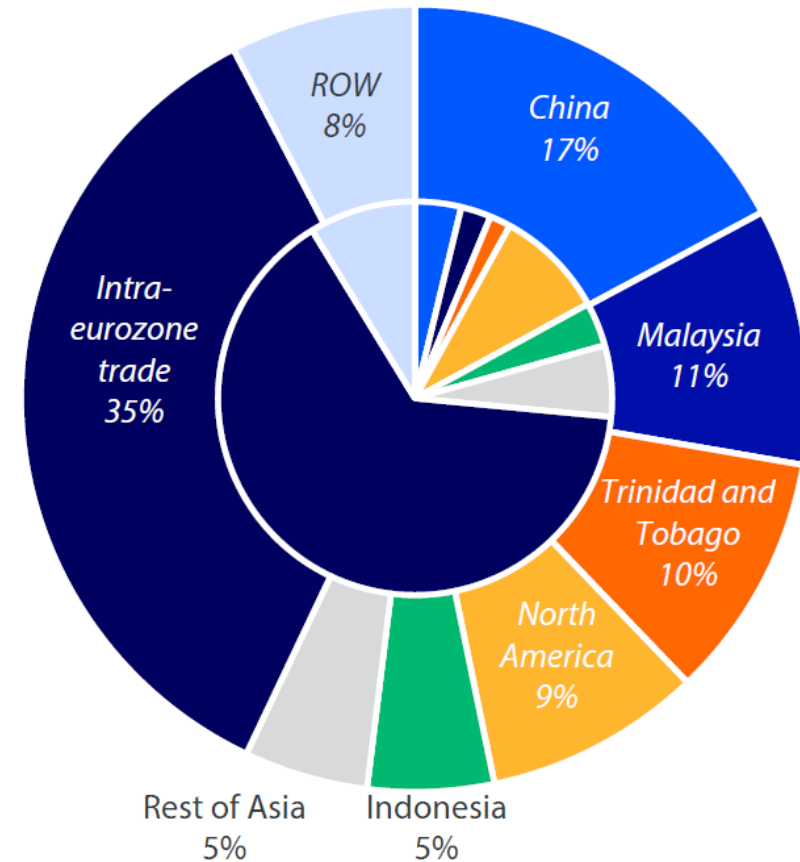


Is finding so much waste product realistic?

As domestic supplies are limited, the EU and the US need to import their UCO



Asia accounted for 38% of global UCO exports in 2021



Source: UN Commtrade, Eurostat, Rabobank 2023

Asia is going to need it's own UCO to meet targets


Global Jet Fuel consumption

Global Bunker Fuel consumption

2019 global jet fuel consumption
(million metric tons)

- China
- South Kor

Source: EIA, Rabo
*ASEAN-6 includes Indonesia, Malaysia, Thailand, Singapore, the Philippines, and Vietnam.

 Organized Crime and Corruption Reporting Project

How Biofuels Scams Have Undermined A Flagship EU Climate Policy - OCCRP

Multiple scams involving fake biofuels have erupted in northern Europe in recent years. A new investigation shows several cases were linked...

 Reuters

<https://www.reuters.com/business/energy/germany-t...>

Germany triggers EU investigation into Chinese biofuels

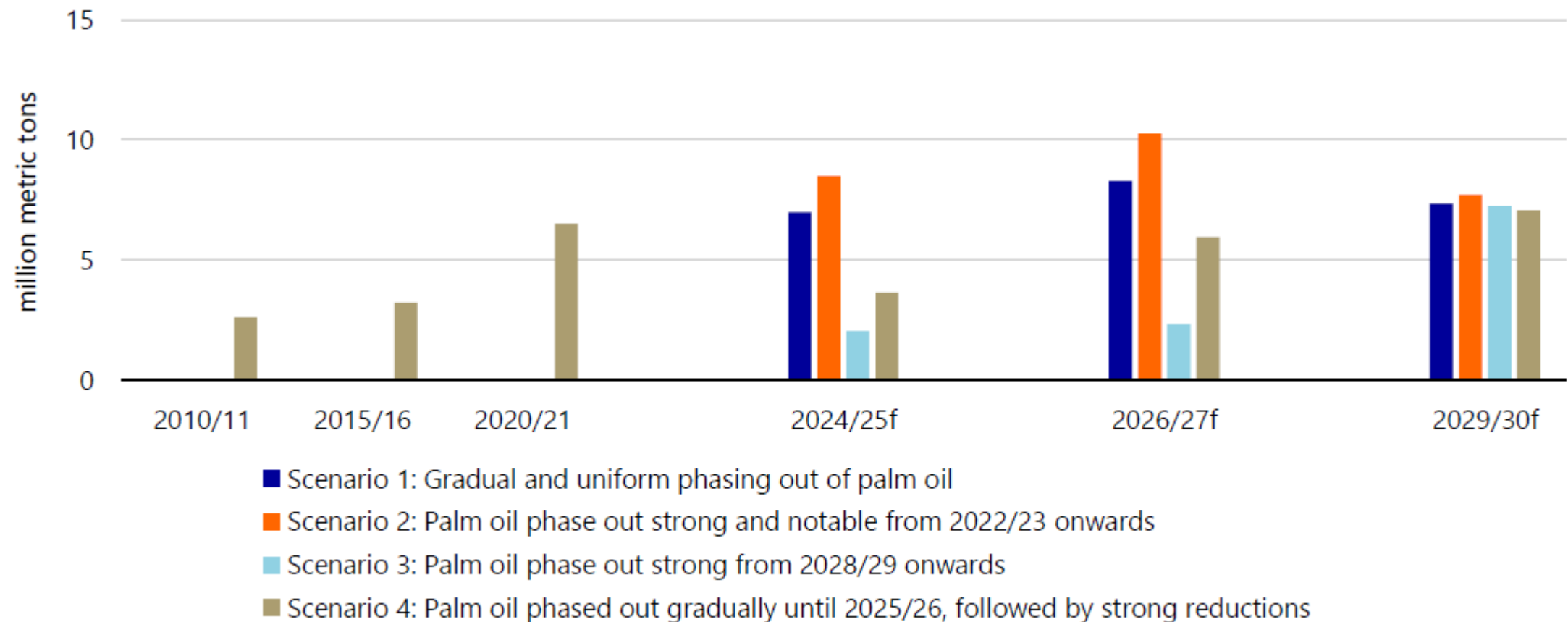
7 June 2023 — **Germany** has asked the European Commission to **investigate** the flow of allegedly fraudulent **biofuels** into the European Union, a spokesperson ...



area

How much EU import demand for canola there is depends on speed of palm phase out

Figure 4: EU 27+UK canola imports under four scenarios of palm oil phase-out, 2010/11-2028/29f



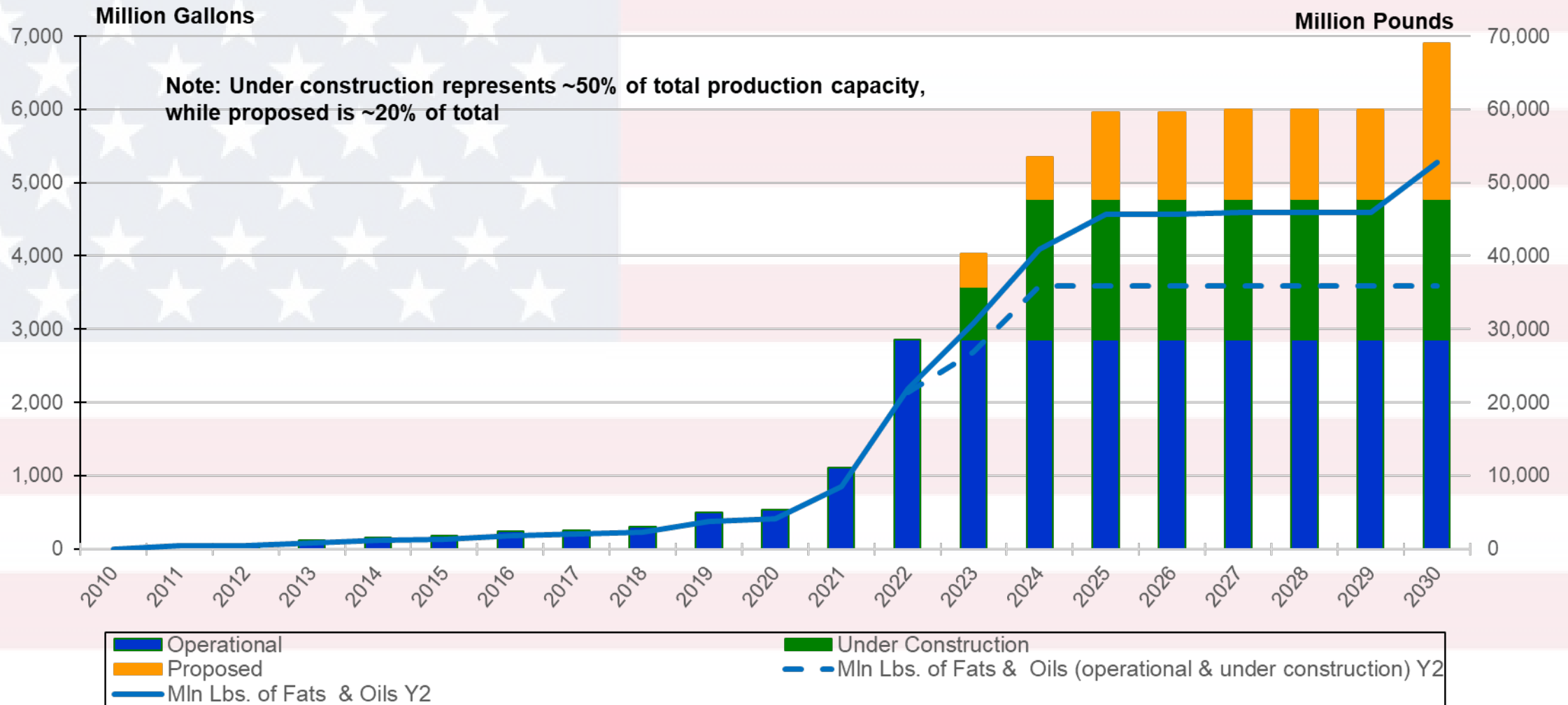
Source: USDA, Rabobank 2021

Demand story: will canola ever become a thing of the past?

BIO



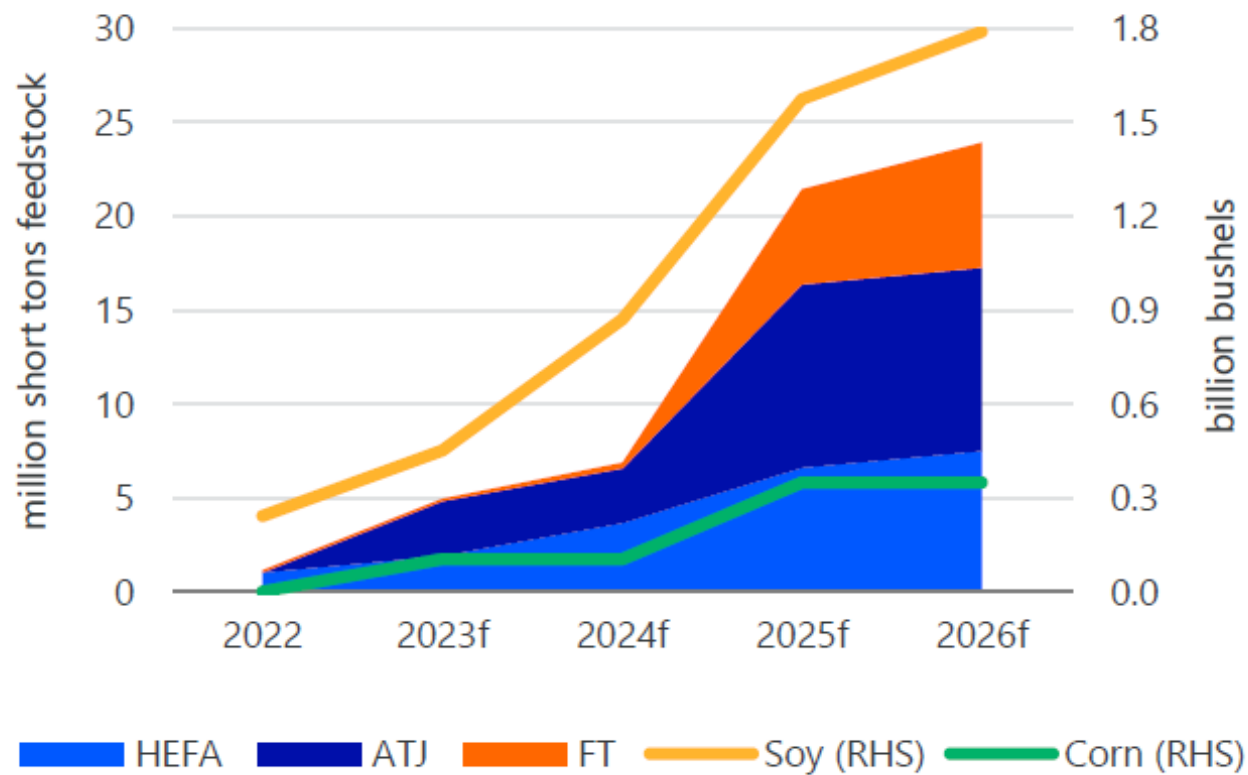
US renewable diesel demand to keep rising to 2030



Note: 2010-2022 is actual renewable diesel production. 2023 & beyond is production capacity.
 Source: EIA, Biodiesel Magazine, Rabobank 2023

US Sustainable Aviation Fuel capacity also on the rise

Figure 27: Implied biomass feedstock demand based on announced SAF capacity, 2022-2026f

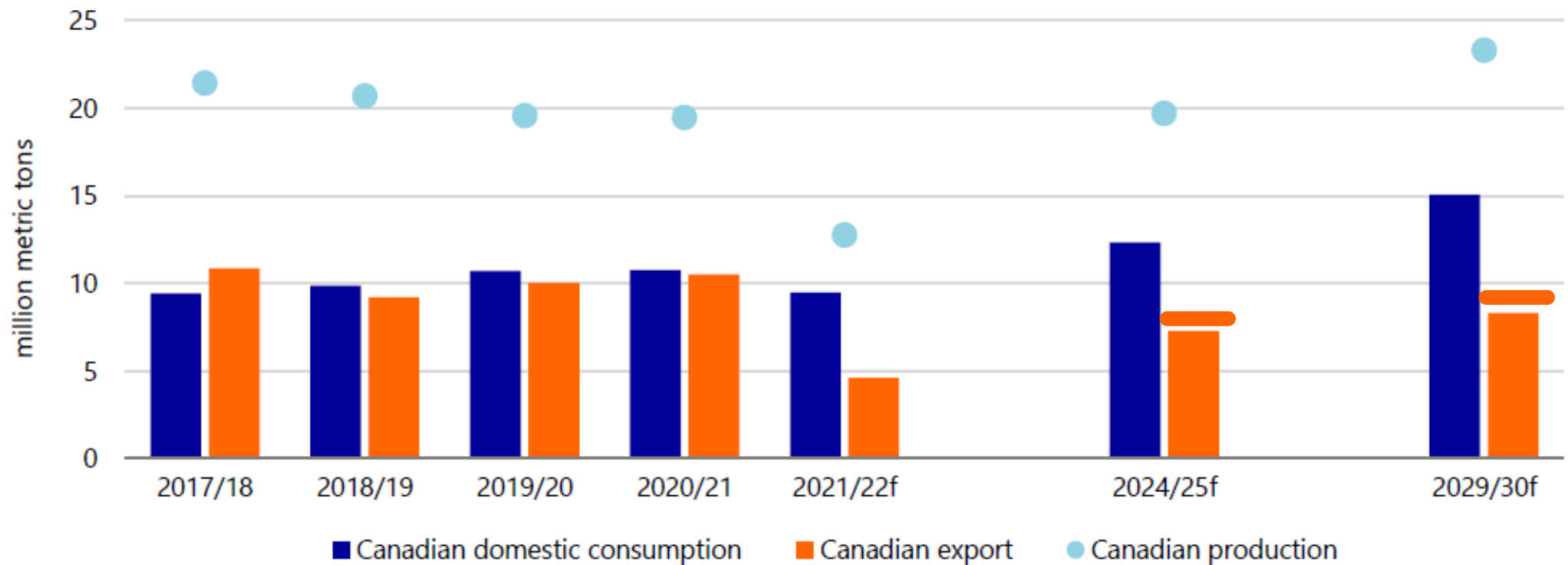


Source: Rabobank 2023

- Assuming, all of the SAF capacity comes from crop based inputs, the equivalent of 7.5 million tonnes of vegetable oil will be needed. Realistic?
- 2022 US Renewable diesel production was 10 million tonnes.

As demand rises for biofuels in the US, Canadian canola crush will rise

Figure 2: Canada's surplus of canola for export will be reduced by 2024/25 despite expected increases in production, 2017/18-2029/30f



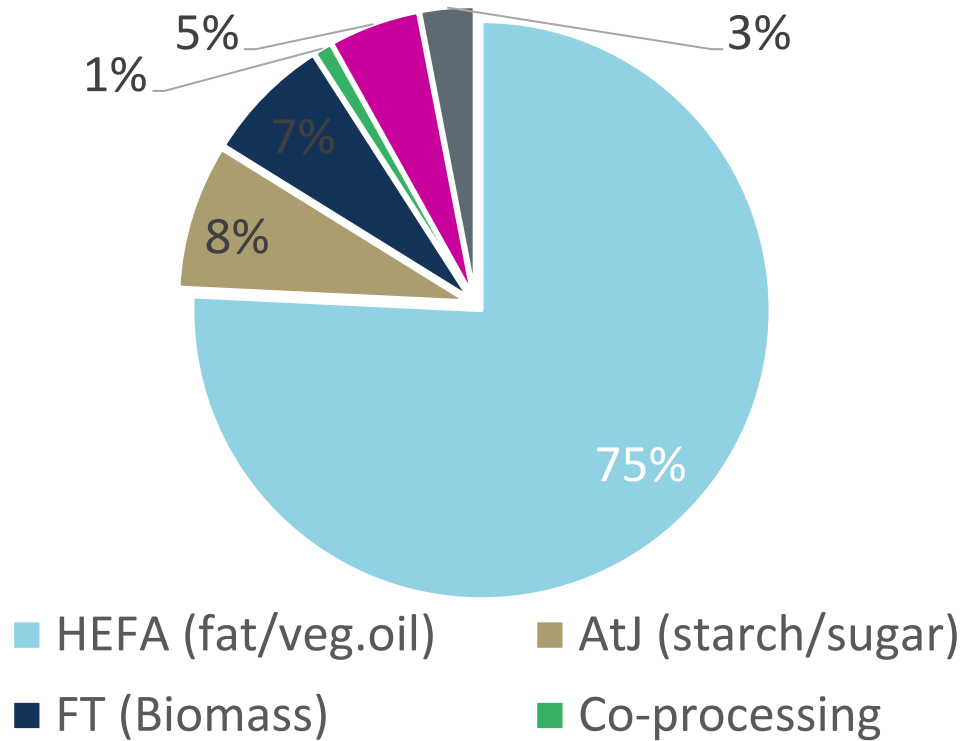
Source: Rabobank's *The Rush to Crush 2021*

Global Sustainable Aviation Fuel Capacity could reach similar size as EU biodiesel capacity

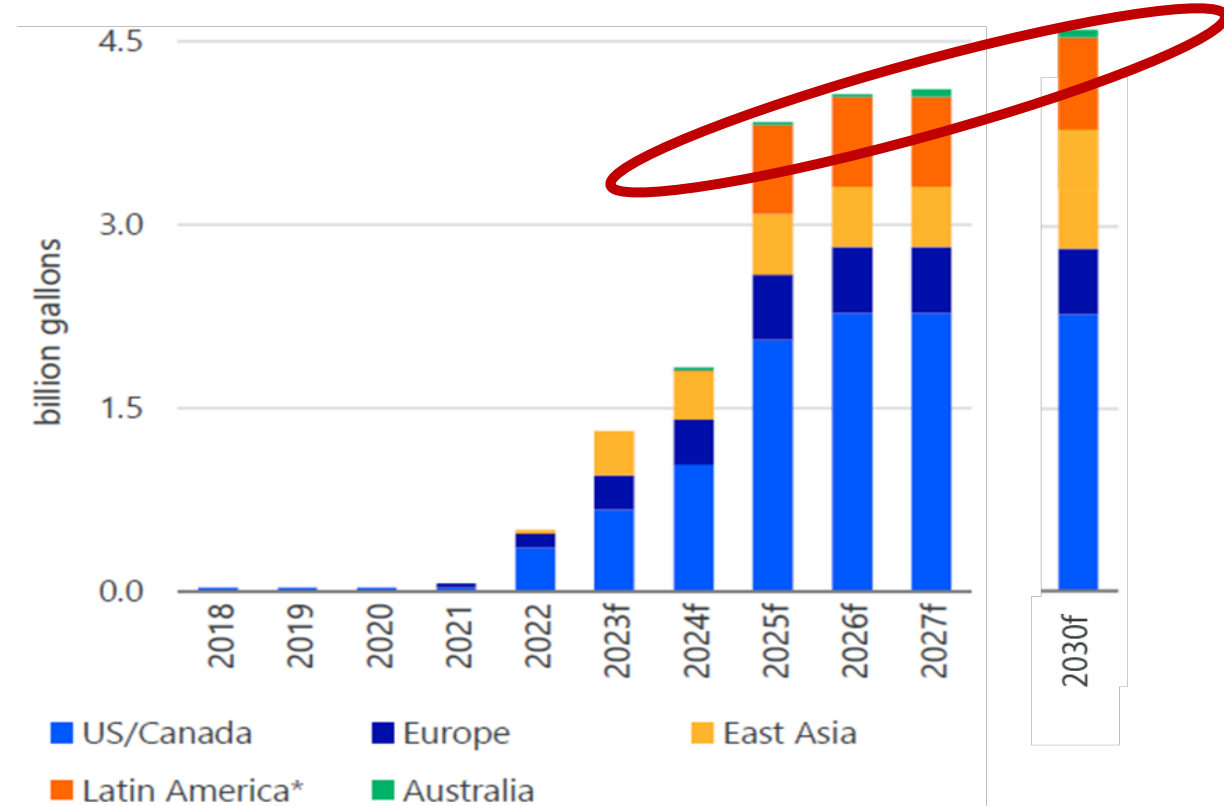


Most SAF capacity is based on fats/UCO/veg. oils = good for oilseed demand!!

Announced SAF Capacity by Type (2030)



Announced SAF Capacity by region: 17m tonnes



Source: Argus, Rabobank 2023

What is the canola outlook?

Next 12 months: increasing demand and production challenges

To 2030: growing demand but with caveats

To 2050: demand from biofuels declines



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