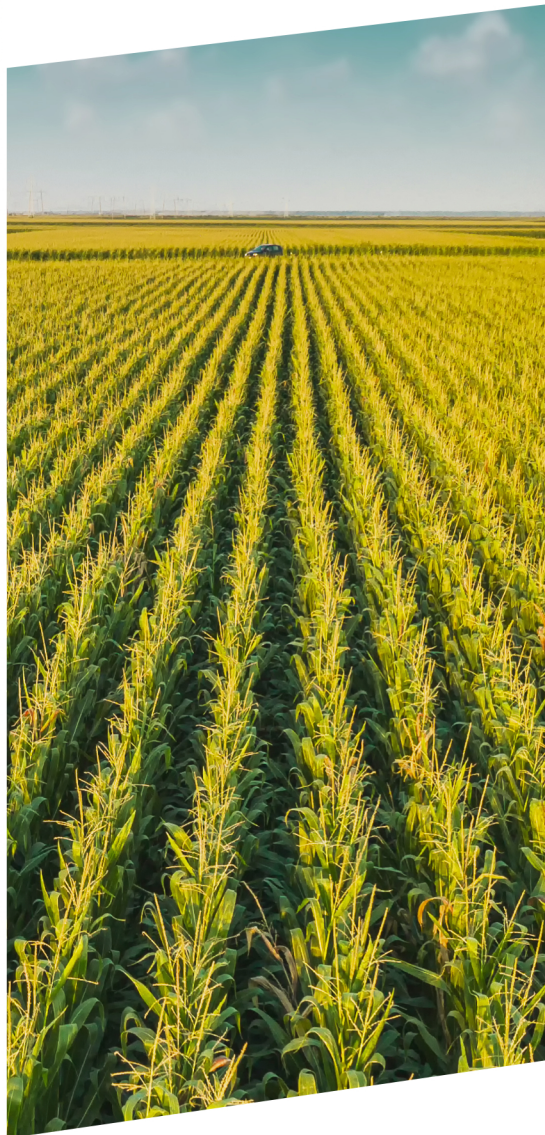


# NON-GMO SOY NON-GMO MAIZE NON-GMO RAPESEED



## HIGHLIGHTS

The following points summarise the major trends and recent developments that affect Non-GM supply & demand within the EU in the current (2023/24) marketing year.

- The availability of local Non-GM soybean in the EU is expected to greatly improve in the 2023/24 marketing season as the result of a record harvest in the region.
- Low Non-GM premiums and moderating food inflation in the EU is likely to favour the consumption of Non-GM products in this season.
- All three crops – soybean, maize & rapeseed – look well supplied both in the EU and on the global market in 2023/24, which will impact prices in the longer term.
- The war in Ukraine has increased price volatility in the Black Sea region, mostly in the maize and rapeseed sectors.
- Brazilian weather throughout November is a critical watchpoint for the oilseed and maize market. Soybean and maize plantation started in October in South America.



Facts and figures regarding soy come from the Donau Soja Market Report. The report is published monthly and provides information on the soy industry with a special focus on the European Non-GM market. The Donau Soja Market Report includes news on market developments and forecasts as well as price, supply and demand data.

## NON-GMO SOY

### Highlights

- EU soybean output is forecast to grow to a record 3 million t in 2023, up 33% (+ 740,000 t) vs 2022, due to higher yields.
- Soybean yield in the EU is projected to be above the 5-year average in 2023. Drought-affected regions fall mostly outside of the key soy producing areas in the EU.
- Non-GM soybean was traded for 410 EUR/t at the Bologna Exchange in late October. This price level is 20% lower when compared to prices at the end of August.
- Non-GM soy meal premiums have moved at a relatively low level over the recent half-year in EU regions.
- Non-GM soy demand in Europe is likely to remain stable in the 2023/24 marketing season.

### Crop forecast

Experts estimate the EU soybean area to be 1.1 million ha in 2023, only a marginal change from last year. Soy output in the EU-27 is projected to reach an all-time high 3 million tonnes (t) this season, up 33% vs 2022, as the result of higher yields (Figure 1 & Table 1 on next page).

Soybean yield in the EU is expected to reach 2.73 t/ha in 2023, 3% higher vs the 5-year average and much higher when compared to 2.08 t/ha in the previous season when soybeans suffered greatly from dry and hot weather conditions in the EU.

MARS, the EU crop forecasting service, expects a similar soy yield of 2.67 t/ha for 2023 within the EU in its latest report published on 25 October.

**Figure 1** Soybean output development in EU-27 (million t)



Source: Donau Soja

**Table 1** Soybean production in EU-27 by top 10 producer country (1,000 t)

		2022	2023*	change	change %
1	Italy	610	1,050	+ 440.0	+ 72.1%
2	France	380	420	+ 40.0	+ 10.5%
3	Romania	233	340	+ 107.0	+ 45.9%
4	Croatia	200	230	+ 30.0	+ 15.0%
5	Austria	244	275	+ 31.0	+ 12.7%
6	Hungary	127	165	+ 38.0	+ 29.9%
7	Slovakia	130	165	+ 34.6	+ 26.5%
8	Germany	128	140	+ 12.3	+ 9.6%
9	Poland	100	100	-	-
10	Czech Rep.	66	65	- 0.8	- 1.2%
	<b>Total EU-27</b>	<b>2,235</b>	<b>2,975</b>	<b>+ 740.0</b>	<b>+ 33.1%</b>

\*forecast

Source: Donau Soja

By late October, the soy harvest has finished in the EU. Hot and dry weather provided excellent conditions for harvesting in September & October. Earlier in the growing period (May–August), abundant rain favoured the growth of soy in most EU soy producing regions.

This season, a large part of Europe suffered again from dry and hot weather in the summer, but most of these drought-affected regions were outside of the key soy producing areas.

### Price developments

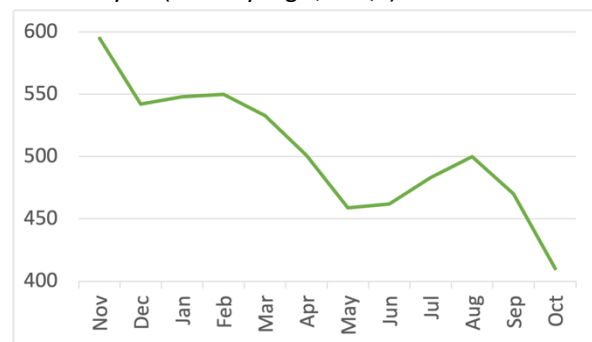
EU Non-GM soy prices have declined over the last 3 months. In late October, Non-GM soybeans were traded at 410 EUR/t at the Bologna Exchange, a benchmark price for the EU. This price level is 20% lower when compared to the 500 EUR/t recorded in August (Figure 2).

EU Non-GM soybean prices were driven downward over recent months by the following factors:

- Forecasts for an abundant soy output & stocks in the global soybean market for the 2023/24 marketing season;
- Low prices of rapemeal which can replace soymeal in Non-GM feed ratios to a certain extent;
- Record soy harvest in the EU (and Europe);
- Large Ukrainian soy output and UA export flow to the EU.

In the coming weeks, weather news from South America will be a focus in the international market. Brazil, which is the biggest soy producer worldwide, is expected to plant a record soy area in the current season (2023/24). November is critical as plantation progresses in the region.

**Figure 2** Soybean price at the Bologna Exchange over the last 1 year (monthly avg. \*, EUR/t)



\*Price in August/Sep 2023 is estimated by Donau Soja

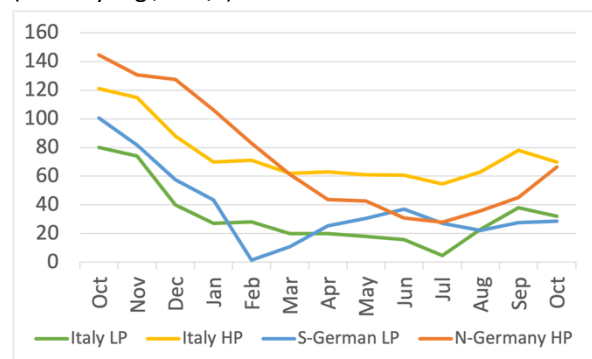
Source: Bologna Exchange

### Non-GM soymeal premiums

Non-GM soymeal premiums in the EU remained relatively stable and at historic low levels over the recent half year (Figure 3). Abundant imports from Brazil and Ukraine as well as low demand for Non-GM soy put pressure on the premiums throughout the 2022/23 season. Most recently, the record European crop weighed on the premiums.

However, the premium for HP Non-GM soymeal in Northern Germany leaped to 70 EUR/t (a level last seen 8 months ago) in October despite relatively stable premiums in other regions of the EU. The explanation for the higher premiums in the North Sea ports lies in their greater distance from the typical European soy production areas. European Non-GM soy raw materials, especially Ukrainian products, are currently struggling to reach the North Sea/Baltic ports such as Brake or Rotterdam. Hence the bumper soy crop in the continent has less impact in this region. Ports in the North Sea receive more supplies from Brazil (or India) and thus the price is strongly related to market developments in South America.

**Figure 3** Non-GM soymeal premiums over the last 1 year (monthly avg., EUR/t)



Source: Donau Soja

## Non-GMO supply & demand

In the short-term, the record crop in the EU/Europe is likely to contribute to:

- greater availability of local (regional) Non-GM soybeans within the EU,
- further improvement in the Ukrainian export potential of Non-GM soy to the EU.
- additional pressure on the Non-GM premiums in the EU.

In the mid-term (most specifically in the first half of next year), the Brazilian Non-GM supply will have a key impact on Non-GM premiums. Brazil is traditionally the most important source of Non-GM soy import in Europe.

### Brazil

Soy sowing has been in full swing since October. Experts forecast that Brazilian Non-GM soy production is likely to reach almost 3 million t in the current marketing season (2023/24). This volume is similar to the previous year and should be enough to supply all current export programs to Europe in 2024 (Europe is the main destination of Non-GM soy materials produced in Brazil).

At the start of the sowing period in September, several economic factors affected the decision of the Brazilian farmers whether to plant GM or Non-GM varieties this season:

- The current low level of Non-GM soy premiums in Europe;
- Seed costs of Non-GM varieties have declined over the last three months in Brazil, while GM seed prices have climbed;
- In the previous season, Non-GM yields have reached higher levels than their GM peers. This happened the first time in history after GM soy varieties became mainstream.

Non-GM soy demand in Europe is likely to remain stable throughout the 2023/24 marketing season as the result of the following factors:

- great availability of local (European) Non-GM soybean from harvest 2023;
- low Non-GM soy meal premiums make Non-GM feeding programs more attractive;
- increasing demand for regional & deforestation free materials in Europe;
- new processing capacities of Non-GM soy in Mainz, Germany (ADM crushing plant);
- EU food inflation is expected to moderate compared to levels in 2022/23

### Box 1 DG AGRI'S AUTUMN PROGNOSIS

DG AGRI published its regular quarterly [short-term outlook](#) for EU agricultural markets in October. Some of the most important observations / projections (from the perspective of the Non-GM soy sector) are as follows:

- Food prices have started to decline but they are still at a relatively high level in the EU and price considerations are still important for consumers when making shopping decisions.
- Per capita meat consumption in the EU is expected to fall by 1.5% to 66.1 kg in 2023, due to price inflation and lower supply on the market. This could be the lowest level in the last 9 years.
- Total meat production in the EU is forecast to drop by 3% in 2023.
- EU pork production drops by 6.6% in 2023 to its lowest level (20.8 million t) since 2000. This decrease is explained by a smaller breeding herd and African Swine Fever (ASF).
- Beef production in the EU-27 will drop by 3.1% in 2023, mainly due to a structural adjustment in the beef and dairy sector and low margins.
- In contrast, EU poultry is predicted to continue its recovery and expand by 3.3% in 2023, thanks to its favourable price compared with other meats. This growth is expected to be reached despite outbreaks of highly pathogenic avian influenza (which has lower intensity this year vs 2022).

# NON-GMO MAIZE

## Highlights

- Maize output in the EU-27 is forecast to expand to 59.9 million t in 2023, up 12.7% compared to 2022.
- Euronext maize price moved at 202 EUR/t at the end of October, down 4% vs one month earlier. A key watchpoint on the maize market is the harvest progress in the USA and the situation in the Black Sea region.
- EU maize import is likely to remain at a relatively high level of 25 million t in the 2023/24 marketing season.
- The overwhelming majority of maize in the EU market is Non-GM. Share of GM is roughly 1% of the EU domestic output and roughly 20% of the EU maize import.

## Crop forecast

Maize area in the EU-27 has decreased by 4.2% to 8.5 million ha in 2023, according to the latest estimates of the European Commission published on 25 October.

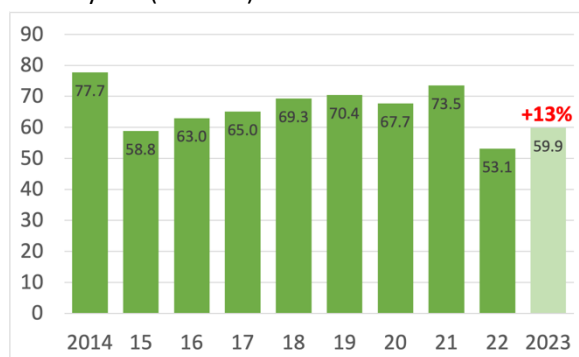
This season, EU farmers have switched from maize to more drought resilient and less input intensive crops, such as wheat or barely, after the severe drought and the fertilizer prices hike in 2022.

Maize output in EU-27 is projected to expand by 12.7% to 59.9 million t in 2023 (Figure 4, Table 2), on the back of higher yields. This shows a modest rebound this season in EU maize output after the massive drop in 2022.

Yield forecast is 7.07 t/ha which is much higher compared to 6.01 t/ha in the previous season but lower compared to the 5-year average of 7.69 t/ha.

The European Commission cut repeatedly its estimates for the EU maize output and yield

**Figure 4** Maize output development in EU-27 over the last 10 years (million t)



Source: DG AGRI

during this growing season (May onwards) in its monthly MARS outlooks. The main reason for the worsened yield expectations is the drier-than-usual conditions that occurred in western, central and northern Europe. EU maize harvest started in September and is likely to finish in early November.

## Price developments

Paris maize futures have dropped over the recent three months (August – October) (Figure 5 on next page). Nearby contract (Nov-23) was traded at around 200 EUR/t at the end of October, -4% vs one month earlier. Prices on the physical market showed similar trends in Germany.

Forecasts for great outputs in 2023/24 have weighed on prices in recent months. Two specific factors affected price movements in the global and EU maize markets over the recent three months:

- The weather and crop situation in the USA, the biggest maize producer and exporter worldwide – the USA is foreseen to harvest a near record crop this season (2023/24) despite the hot and dry weather which hampered yield potential throughout the previous months in the region.
- Developments in Ukraine, the 3rd largest maize exporter worldwide – Russian attacks on Ukrainian export facilities heightened uncertainties in the global maize market.

Key watch points for the coming weeks are the planting progress in South America and geopolitical developments in the Black Sea region. No big price swings are likely if South American plantings proceed normally.

**Table 2** Maize production in EU-27 by top 10 producer country (million t)

		2022	2023*	change	change %
1	France	11.0	12.0	+ 1.1	+ 9.6%
2	Romania	8.0	9.2	+ 1.2	+ 15.5%
3	Poland	8.5	9.2	+ 0.8	+ 9.1%
4	Hungary	2.8	6.0	+ 3.2	+ 116.8%
5	Italy	4.7	5.2	+ 0.5	+ 10.5%
6	Germany	3.8	4.3	+ 0.4	+ 11.2%
7	Spain	3.6	2.7	- 0.8	- 23.1%
8	Bulgaria	2.5	2.3	- 0.2	- 8.9%
9	Croatia	1.6	2.0	+ 0.4	+ 21.7%
10	Austria	2.1	2.2	+ 0.1	+ 5.7%
	<b>Total EU-27</b>	<b>53.1</b>	<b>59.9</b>	<b>+ 6.7</b>	<b>+ 12.7%</b>

\*forecast

Source: Donau Soja

### Non-GMO supply & demand

No shortages are likely to emerge in the supply of Non-GM feed grain in the EU throughout the 2023/24 marketing season. The recovery of the EU maize crop and the export potential of Ukraine ensure that EU Non-GM maize demand is covered.

**Figure 5** Maize price on Euronext Paris (MATIF) over the last 1 year (monthly avg., nearby month, EUR/t)



Source: MATIF

In addition, the wheat output in the EU was accompanied by quality losses as a result of prolonged wet conditions during the harvest period. In some member states, the share of feed wheat is higher than in the previous year. These volumes may displace the relatively more expensive maize from compound feed.

### Box 2 SHARE OF NON-GM MAIZE IN EU MARKET

The lion's share of maize and maize products in the EU market is Non-GM by origin. Non-GM maize is available in large quantities and hence has normally no higher price (premium) over GM maize.

In domestic maize production, GM maize is limited to less than 1% of the total EU maize output. GM maize is the only GM crop which is commercially produced in the EU. Spain and Portugal are the only EU members that have adopted GM varieties in maize production.

In 2022, GM maize area in Spain occupied around 68,000 hectares, 19% of the total Spanish maize area. Spain's GM maize area represents roughly 95% of the EU's total GM maize area, and the remaining 5% (2,300 ha) is in Portugal.

The EU relies on maize imports. Domestic maize production covered around 85% of the total EU maize consumption when calculated for the 5 years of 2018-2022. The yearly maize import of the EU-27 has ranged from 9 to 25 million t over the last 10 years.

USDA (United States Department of Agriculture) estimates that roughly 80% of the EU maize import is Non-GM. The main source of import is Ukraine, responsible for around 50-60% of the total EU maize import (5-year avg. of 2018-2022). Officially, there is no approved GM maize variety for cultivation in Ukraine but there is a limited amount – around 1% – of illegal GM maize production in Ukraine, according to the USDA estimations.

Brazil also plays an important role in supplying maize to the EU, accounting for roughly 25% of the EU import (5-year avg. of 2018-2022). The share of GM maize production covers a much higher proportion, around 95% of the total Brazilian maize cultivation. This means that the majority of maize from Brazil is GM.

# NON-GMO RAPE

## Highlights

- Rapeseed output in the EU-27 is estimated at 19.8 million t in 2023, up 1.0% (+ 200,000 t) from last year's harvest. Harvest was finished in August.
- The sowing of winter rapeseed started in the EU in October. A slight drop is likely in the acreage for the 2024 harvest.
- Euronext rapeseed price continued to drop and moved to 421 EUR/t at the end of October. The global market looks well supplied for the 2023/24 season, which puts downward pressure on prices.
- Non-GM is the normal quality in the EU rapeseed market, and hence Non-GM has normally no higher price than GM rapeseed.

## Crop forecast

The rapeseed harvest in the EU ended in August. EU rapeseed acreage covered 6.2 million ha in 2023, up 5.3% vs the previous year, according to the latest estimates of the EU Commission (published on 25 October). At the start of the sowing season in autumn 2022, prices moved to historically high levels, which drove farmers to plant rapeseed.

EU rapeseed output is estimated at 19.8 million t in 2023, marginally up from last year's harvest (Figure 6, Table 3). Total rapeseed output in the 27-nation bloc grew for the fourth year in a row.

The EU Commission estimates an average yield of 3.19 t/ha in 2023, this value is still above the five-year average of 3.12 t/ha. The yield results this season have not met the high expectations from the spring. From June to mid-July, the crop in Western Europe and northern Central Europe had suffered from drought. From mid-July onwards, rainfall affected the ripening and the harvest.

**Figure 6** Rapeseed output development in EU-27 over the last 10 years (million t)



Source: DG AGRI

Looking ahead to the 2024 crop, the sowing of winter rapeseed started in the EU in October. The plantation has taken place under widely varying conditions. The consensus among analysts is that acreage for the 2024 harvest will be slightly down on the previous year.

Warm temperatures and relatively dry conditions at sowing and subsequent rainfall were favourable for early crop development. In Poland, rapeseed sowing was delayed due to the late grain harvest, which was exacerbated by rainy weather in August. Late-planted rapeseed emerged poorly in some areas resulting in uneven crop development. Excessively wet conditions in Finland and Estonia delayed the seeding campaign and may have affected optimal crop establishment. In contrast, very dry conditions in the south-eastern regions of Romania and southern Ukraine may have seriously affected germination, emergence, and early crop development, necessitating reseeding.

## Price developments

Rapeseed prices on Euronext continued to fall in October. February futures dropped almost 10% from the start of the month to a four-month low of 421 EUR/t by October 24.

Rapeseed is affected by a weak vegetable oil market. Decrease of the sunflower oil prices dragging down related vegetable oils. By contrast, the vegetable oil market was unable to benefit from the sharp rise in crude oil prices following the start of the war in Gaza. On the spot market, rapeseed prices fell to a similar extent as on the Euronext.

In the longer term, the global rapeseed market looks well supplied with expected great outputs in the EU, Ukraine, Canada and Australia in 2023/24.

**Table 3** Rapeseed production in EU-27 by top 10 producer country (1,000 t)

		2022	2023*	change	change %
1	France	4,517	4,267	- 250	- 5.5%
2	Germany	4,295	4,239	- 56	- 1.3%
3	Poland	3,647	3,620	- 27	- 0.8%
4	Romania	1,230	1,945	+ 716	+ 58.2%
5	Czechia	1,166	1,274	+ 108	+ 9.2%
6	Lithuania	896.0	792.0	- 104	- 11.6%
7	Denmark	889.2	771.5	- 118	- 13.2%
8	Hungary	505.1	589.7	+ 85	+ 16.8%
9	Slovakia	441.8	526.7	+ 85	+ 19.2%
10	Sweden	427.5	409.0	- 19	- 4.3%
	<b>Total EU-27</b>	<b>19,562</b>	<b>19,765</b>	<b>+ 203</b>	<b>+ 1.0%</b>

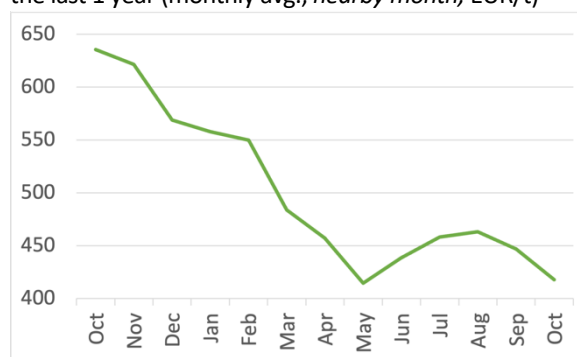
\*estimates

Source: DG AGRI

### Non-GMO supply & demand

Rapeseed supply in the EU remains comfortable for the 2023/24 season after a relatively good harvest and excessive stock build-up from the previous season.

**Figure 7** Rapeseed price on Euronext Paris (MATIF) over the last 1 year (monthly avg., nearby month, EUR/t)



Source: MATIF

Rapeseed imports in 2023/24 will be 5.2 million t, 1.6 million t smaller than in the previous year, according to the estimates of USDA (United States Department of Agriculture). The overwhelming majority will be likely to be Non-GMO (Box 3).

### Box 3 SHARE OF NON-GM RAPESEED ON EU MARKET

Similarly to the maize market, the overwhelming majority of the rapeseed and rapemeal traded within the EU is Non-GM by origin. For this reason, there is normally no premium for Non-GM rapeseed vs GM rapeseed in the market.

In the EU-27, only Non-GM rapeseed is produced. But import is needed to supply the demand within the 27-nation bloc. A small part of this import is likely to be GM.

The EU-27 rapeseed import ranged between 2.5 and 7.1 million t over the last 10 years. In a longer-term comparison, the expected import volume is above average both in 2022/23 and 2023/24. According to a forecast by the European Commission, the EU-27 will import 5.8 million t of rapeseed in the 2023/24 marketing year, 1.0 million t less than it is estimated for 2022/23.

The rapeseed import in the EU-27 comes from countries with varying adoption rate of GM rapeseed. The main source of EU rapeseed import is Ukraine which is traditionally the most important supplier of rapeseed, accounting for roughly 40% of the EU import. However, there is no legitimate commercial production of GM crops in Ukraine, USDA reported that around 10-12% of rapeseed production is GM in Ukraine.

Canada and Australia also play an important role to supply rapeseed to the EU. Both countries have GM rapeseed varieties in commercial production. In 2022, the share of GM varieties in the total rapeseed area was estimated at 95% in Canada and 25% in Australia.



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**ENGA AISBL**

Rue du Monastère 10-12, 1000 Bruxelles

Phone: +32 (0) 493 33 5491

Email: [info@enga.org](mailto:info@enga.org)

[www.enga.org](http://www.enga.org)

[www.donausoja.org](http://www.donausoja.org)

[www.proterrafoundation.org](http://www.proterrafoundation.org)

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