

# Impact of high input costs and Russia's invasion in Ukraine on beet cultivation in the EU and update on contract innovation



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Sugar Market Observatory, 12 May 2022

- Impacts on markets
- Impacts on production costs (short and medium-term)
- The perspectives

# Overview of impacts of the war in Ukraine – Markets

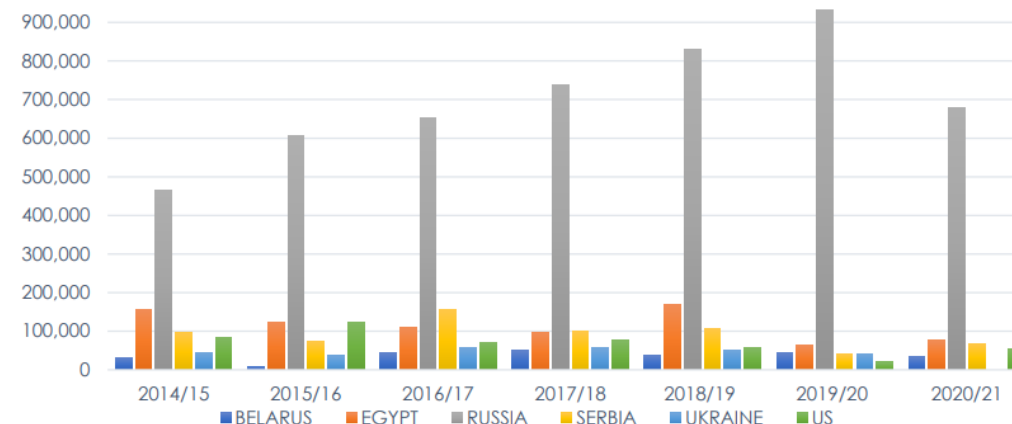
➤ EU sugar trade with Ukraine and Russia is limited: no major impacts on the EU sugar balance are expected from possible trade disruptions, but following Commission proposal to withdraw all tariff duties for one year, a close monitoring of possible imports from Ukraine is necessary

➤ However, Russia is a major supplier of **beet pulp** (around 70% of imports) and beet molasses (around 50% of imports) → possible impacts on beet pulp supply as the EU beet pulp imports represent around 18% of EU beet pulp production and as beet pulp uses, notably for energy purpose, is increasing

	Ukraine	Russia	Belarus
Sugar Production	1.2 -1.5 Mt	5 -7 Mt	0.6 Mt
Sugar Exports Destination	0.15-0.5 Mt Ban on exports	0.5 - 1.5 Mt Neighboring countries	-
EU sugar imports	0.02 Mt	-	-
EU sugar exports	-	0.02 Mt	-
EU beet pulp imports	~ 0.9 Mt, main suppliers		-
EU beet molasses			~ 0,3 Mt, main suppliers

MAIN SUPPLIERS OF BEET PULP TO THE EU +UK (IN T) - PRODUCT CN 23032010

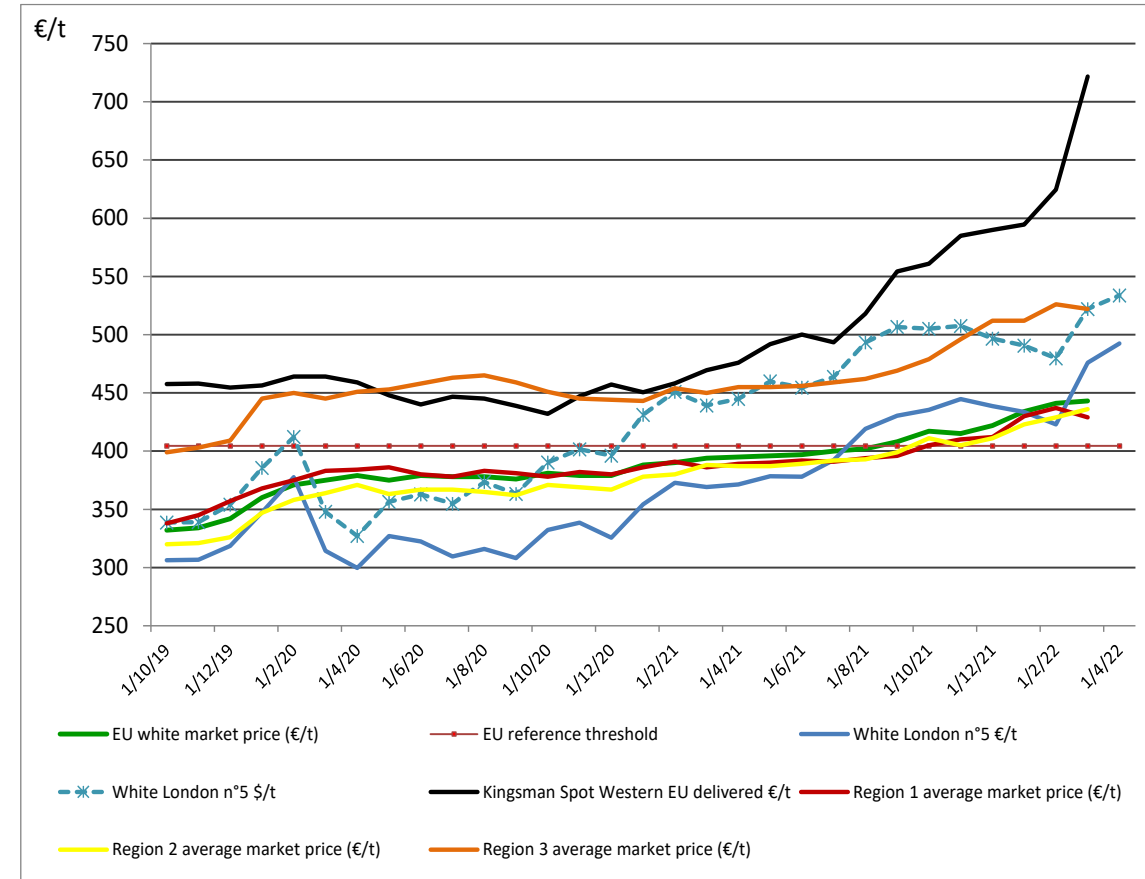
source: Data Eurostat Comext since 1988 HS2, 4, 6 and CN8 (DS045409) & DS 059271 UK trade Feb -Oct 2020 by H2,4, 5 and CN8  
EU evolutive stats (Stats for EU27+UK Oct-Dec 2020 + stats EU27 Jan-Sept 2021)





# Highlights on spot markets

- Spot prices skyrocketed (€865/t Western delivered on 6 May – S&P Global)
- Freight costs of white sugar from ACP/LDC origins would have doubled
- Freight costs of raw sugar from Brazil would have been multiplied by 2.5
- Refining costs in the EU would have increased by around 60% due to higher energy costs
- Imports of sugar become expensive
  - World raw sugar price #11 Oct 22 at 19 ct/lb → corresponds to a CXL sugar (at €98/t duty) delivered close to €680/t
  - World white sugar price #5 Oct22 at \$513/t → correspond to white sugar (at zero duty) delivered close to €630/t
- EU sugar price negotiations for 2022/23 should be above these figures!



## ➤ Short-term:

- Cultivation costs at field based on fertilizers price in February/March 2022: **+ 15% to + 27% for sugar beet costs (incl. fertilizers and energy), depending on country, between 2021/22 and 2022/23 → around + €350- €400/ha, i.e. at least + € 4-5/t of beet**
- Fertilizers prices hit records
- Gas price (sugar manufacturer costs) hits record and remains close to €95/MWh on the short (and medium) – term against an average of €20/Mwh last year (Dutch TTF)

	Ex-works (Europe) On 10 May 2022	Trend
Ammonium Nitrate 33 (Mainly an issue of gas price but no dependance on imports)	€ 790/t	↑
Urea (High dependance on imports from RU, BL)	€ 815 /t	↑
Super Phosphate Triple (High dependance on imports, especially from RU, BL)	€ 970/t	~
MOP (High dependance on imports from RU, BL)	€ 867.5/t	↑

# How to optimize fertilizers & maintain productivity in an already difficult context?



## ➤ Reminder:

- Crop rotation contributes to mitigating the depletion of crop-specific nutrients
- **Significant reduction in nitrogen uses in sugar beet cultivation has already occurred during past 2 decades** (25% to 50% reduction depending on MSs – see EUBSSP)
- **Nutrient management to optimize the use of fertilizers is being applied since decades** (Azofert, Stikstofbemesting, Module fumure azote minerale/ Minerale Stikstofbemesting, Electro-Ultrafiltration, Afbalanceret gødskning, Balanserad gödsling, Tasapainoinen lannoitus – see EUBSSP)

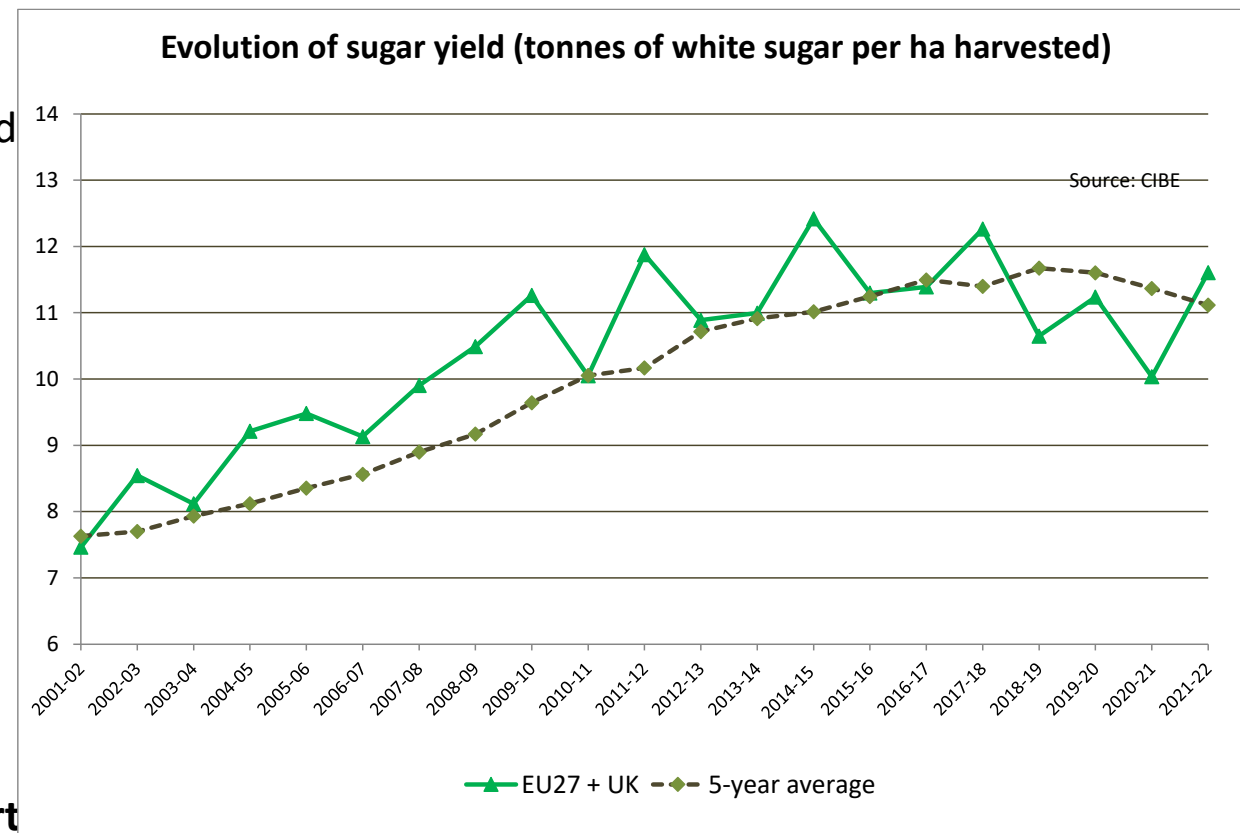
## ➤ **Few manoeuvring margins** to further reduce fertilizers (**margins on phosphate and potash have already been exhausted in some regions last year because of financial issues in beet farms!**) without impacting future yields, depends highly on soil types (advices currently coordinated by technical beet institutes)

## ➤ In this context, **precision farming** and notably precision fertiliser application (the right dose of fertilizer at the right time), is efficient and popular among sugar beet growers, but requires **very significant investment** which currently is preventing its large-scale adoption and deployment

## ➤ Crucial to **urgently support innovation in precision agriculture** (on-board sensors, robotics, etc.) but also to **support financially** the acquisition and use of such equipment (Commission, Member States) also in view of the ambitions of the Green Deal regarding fertilizers use

# How to optimize fertilizers & maintain productivity in an already difficult context?

- Possible negative impacts on yields in 2023/24!
- In addition, the pressure from pests and diseases is on the increase, as from MY 2018/19 the EU27+UK 5-year average started to decline, due to a combination of:
  - **climate change**
  - **a decrease of available crop protection tools** (> 20 active substances lost to the sector since 2018)
  - **practically no new PPPs coming on-stream of suitable alternatives to at least partially compensate for the grower's shrinking crop protection toolbox**
- Plant protection is a key issue
- Monitoring of pest and diseases is indispensable, and its implementation is increasing
- **New varieties (incl. NBTs) and new viable tools as well as support to investment are urgently needed!**
- **Beet can contribute to reduce carbon but it needs to maintain its productivity**



# The plant protection issue

## Neonicotinoids in sugar beet

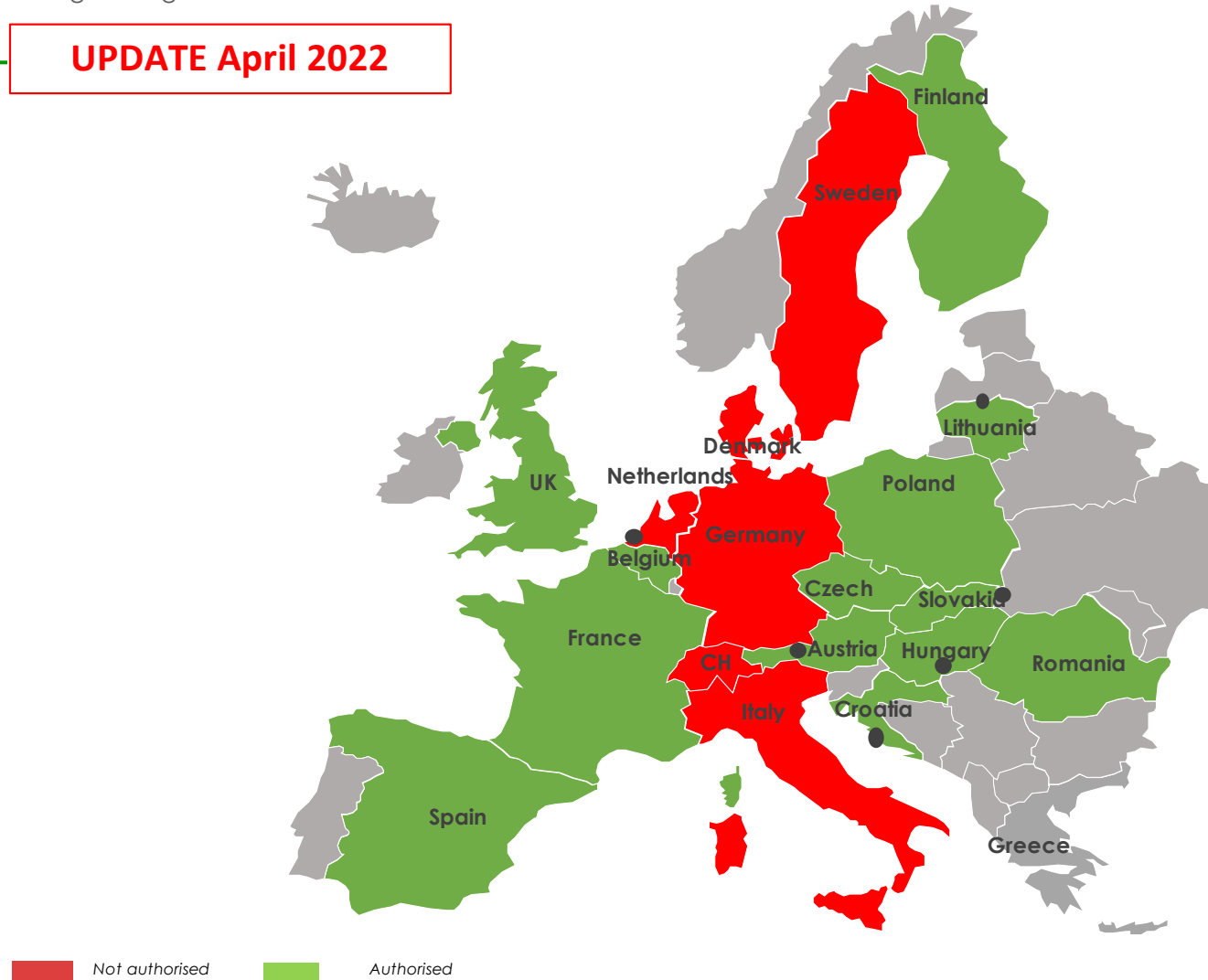
LATEST UPDATE: April 2022

Derogations granted for neonic seed treatments



**UPDATE April 2022**

- Still searching for new tools and techniques as sustainable as NNI!
- 13 countries with E.A for NNI treated sugar beet seed in 2022 (12 EU MS + UK)
- 6 countries without E.A. for NNI treated sugar beet seed in 2022 (5 EU MS + CH)
- Strict conditions are attached to these derogations and CIBE estimates that **less than half of EU+UK beet area was sown with NNI-treated seed in 2022/23**





## ➤ Medium-term:

- **Increased costs for sugar beet harvest, transport and loading still to be considered for next autumn**
- **Energy costs for processing beet** will hurt: average gas price moves from €20/MWh to around 100 MWh on Oct 2022 term (processing cost up to ???) and coal prices increase as well ; in addition, availability of gas next autumn could be an issue from some sugar manufacturers
- **Drying of beet pulp** in some countries could be an issue depending on energy source
- **Costs at field in 2023/24 could further increase:** fertilizers, energy and plant protection products → if prices are maintained at the level of April 2022 for the 2023/24 sugar beet season: > 6€/t beet compared to 2021/22 ?
- **Availability of fertilizers** could be an issue

# Impacts of reduction of inputs... and the challenges of the Green Deal

## Impact Assessment of EC 2030 Green Deal Targets for Sustainable Crop Production- Wageningen

University & Research – January 2022



- **Scenario 1:** 50% reduction in the overall use and risks of pesticides and a 50% reduction in the use of more hazardous pesticides
- **Scenario 2:** 50% reduction in nutrient losses and a 20% reduction in the use of fertilisers
- **Scenario 3:** at least 25% of the agricultural land under organic production
- **Scenario 4:** objectives of scenarios 1 and 2 combined with the objective to place at least 10% of the agricultural land under high-diversity landscape features. In this scenario the effect of the increase of organic production to 25% of the agricultural area is not included.

- **France:** Picardie, deep silt, 143 ha, rotation: soft wheat - winter barley -spring barley - maize -rapeseed - protein- peas -potato - vegetable - sugar beet, 6% of set aside
- **Germany:** different regions around sugar factories, loam, 180 ha, rotation: winter wheat, winter barley, rapeseed, sugar beet, 5% set aside
- **Poland:** Łódzkie Voivodeship, soil mosaic (sandy, loamy and loess soils), 40 ha, Sugar beet- wheat- maize, 3% set aside

**Estimated yield change for sugar beet per scenario**

Country	Scenario 1	Scenario 2	Scenario 3	Scenario 4
France	- 3%	-2%	-54%	-10%
Germany	- 15%	-10%	-40%	-15%
Poland	-10%	-15%	Na	-23%
Average	-12%	-9%	-47%	-16%

Optimistic impact due to the choice of farm type / long rotation

### ➤ Would this be sustainable? No because:

1. A 16% decrease in average yield would not be a sustainable yield if the value of the crop does not follow: at EU level it would be a step back in 2006, would lead to an equivalent decrease in sugar beet income which is already under strong constraints and to a decrease in productivity/competitiveness at a time third competitors are gaining in productivity/competitiveness → sugar beet growers could not stay in business under such conditions
2. It would impact yield sustainability by increasing risks of crop failure: this decrease in yield would be an “unstable” one in reality

### ➤ If we go this way → urgent and essential need for innovation and mirror measures!

- **Increase of costs should be passed along the supply chain to sugar users! If costs transmission to the downstream part would be hindered, EU sugar beet sector will again be hurt severely**
- **Necessary decisions at EU level regarding fertilizers →**
  - lift duty and anti-dumping measures on imports,
  - secure supply from other origins and
  - open new import origins but also
  - adapt the Nitrates Directive and other regulations to facilitate organic alternatives,
  - anticipate the possible tensions on organic fertilizers supply
  - speed up the development of mineral nitrogen fertilizers,
  - provide incentives to support investments in precision agriculture and in the recycling of nutrients in organic matter and manure.

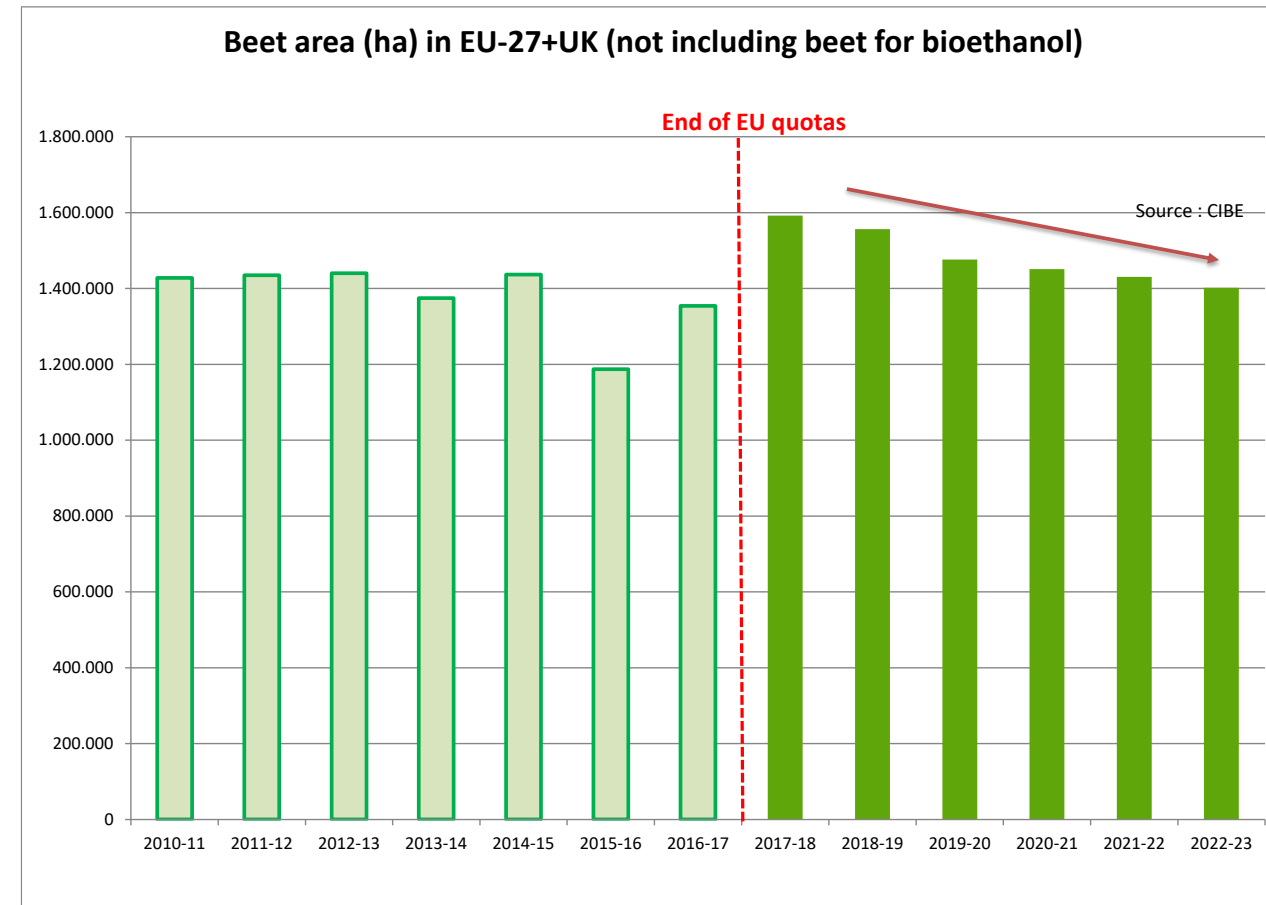
- **The State Aid Temporary Crisis Framework** provides different types of aid, which can be granted by Member States:
  - Direct but limited amounts of aid, in any form, of up to €35,000 for companies affected by the crisis active in the agriculture, fisheries and aquaculture sectors
  - Liquidity support in form of State guarantees and subsidized loans; and
  - Aid to compensate for high energy prices
- **At least 5 countries have decided to apply discounts/reduced taxes or cap prices on fuel** but their impacts for farmers are expected to be limited → **more support for farm uses fuel would be needed**
- **At least 9 countries have decided to apply reduced tax levies for electricity and/or gas**
- The Commission has so far adopted the State Aid Scheme presented by Poland, Germany, Ireland and France (to be updated).
- Many member states are asking for a direct support via State Aids and for specific sectors or an earlier payment of CAP direct income support. Finland implemented national aid for pig and poultry sectors, greenhouse production, storage of horticultural products, reindeer husbandry and fisheries.
- 5 member states (Cyprus, Czech Republic, Denmark, Estonia, Latvia) have not (yet) implemented measures for the farming sector.

- Impacts on the sugar beet sector:
  - very inadequate for the sugar beet processing industry because of too restrictive criteria (operating loss) and
  - **limited for sugar beet growers:**
    - **Poland and Slovakia, have decided to provide a specific support for fertilizers (in Poland subsidy of PLN500 /ha (EUR107/ha) to compensate them for the rising cost of fertilizers**
    - **Greece and Latvia have reduced the VAT on fertilizers (from 13% to 6% in Greece)**
- **Support to investment must increase and speed up!**

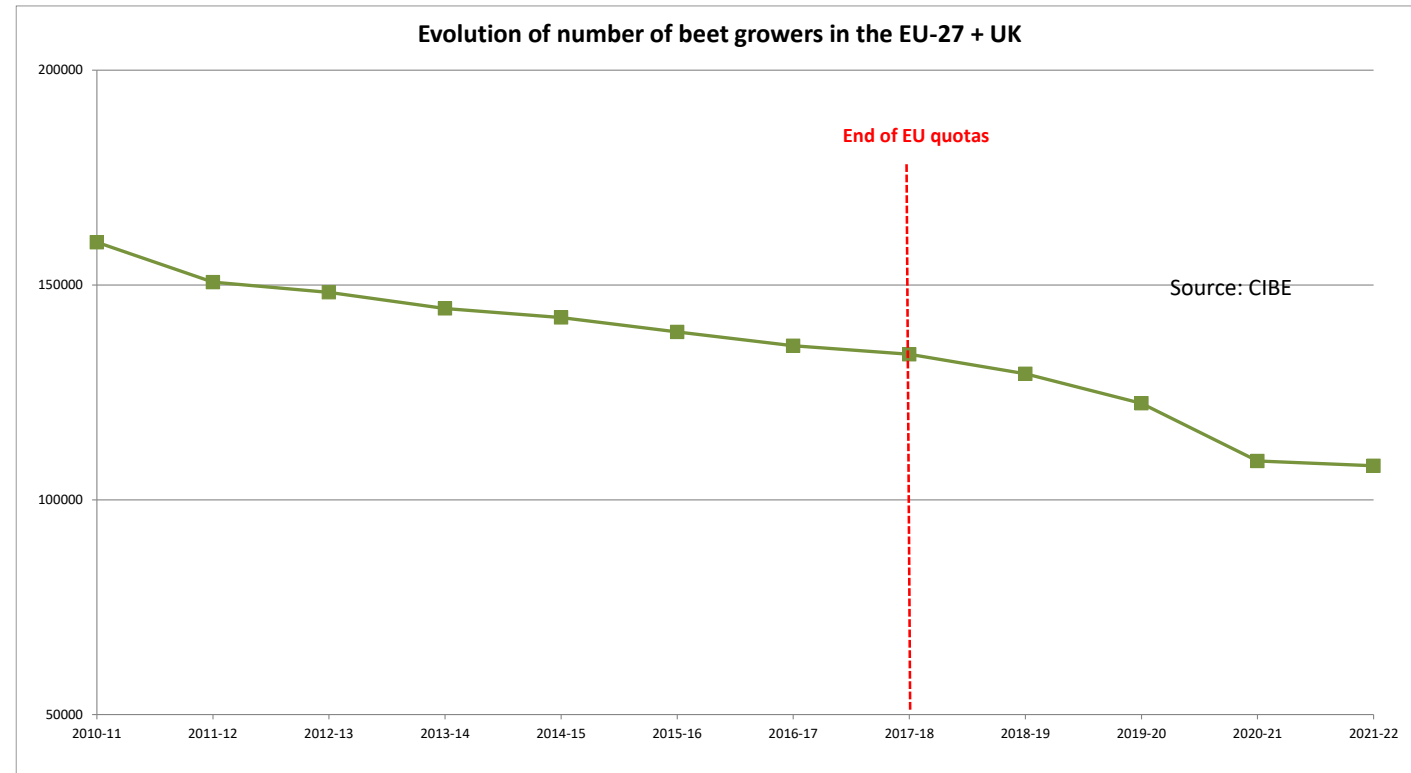


# The perspectives

- **Evolution of EU Beet area: less than enthusiastic (-2% in 2022/23 compared to 2021/22)!**
- This evolution responded to a combination of:
  - low sugar and beet prices so far for MY 2021/22, calculated average beet price amount to €27.8/t
  - to issues related to yield sustainability and
  - to a decrease in attractiveness and trust in the future
- Alternative crop prices are now around €40/t
- **Beet prices offer as from MY 2022/23 need to increase significantly to stop this trend!**
- Beet price offers seen in beet growers' magazines/newspapers and published just ahead of the sowing season: all-in sugar beet prices 2022/23 from €30 to €40/t → would it be sufficient to cover costs increase and ensure income?
- No other significant new developments foreseen in contract arrangements between growers and manufacturers (except in the UK)
- EU Beet area in 2023/24 could continue this negative trend



- **Number of growers continues to decrease:**
  - - 18% in 2021/22 compared to 2017/18
  - Attractiveness of beet decrease
- It remains to be seen whether this trend corresponds to a further restructuring process as we have already experienced it, with some regions “gaining in competitiveness”, or whether this reflect a general and dangerous trend of loss in investments and of losing ground
- Trust of sugar beet growers in the future of the sector is declining
- Next season 2023/24 beet area will retain our attention



- Prices must go up!
- CIBE questions raised following the study on the resilience of the sugar beet sector, have been exacerbated by the consequences of the war in Ukraine and need to be addressed:
  - What measures, included in the CAP and in the latest the Commission Temporary Crisis Framework for State Aid package as well as in other EU funding programmes could be used (or amended?) to support:
    1. Fertilizers rising costs
    2. Investment at sugar beet farm level to tackle the Green Deal
    3. Rising energy costs for sugar beet processing
  - How to **speed up the access to investment, new tools** (ex. NBTs) as well as **R&D funding** (to our knowledge still no funding from Horizon Europe!) for sugar beet cultivation ?
- Need for further exchanges and concrete solutions between Commission and Member States following the CDG/GREX meeting of 25 February 2022



# Thank you for your attention!



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