THE EU YEAST SECTOR: A SOLUTION PROVIDER FOR A SUSTAINABLE FOOD CHAIN AT RISK OF RAW MATERIAL SHORTAGE DUE TO POTENTIAL RED III PROVISIONS November 2022



Due to measures considered under RED III, the EU yeast sector is once again facing a risk of severe shortage of its raw material, molasses and low-green syrup. Such shortage will have very negative collateral impact on the production of many emblematic traditional fermented foods and beverages such as bread, wine and beer, as well as innovative green tech solutions provided by the yeast sector.

A shortage of these raw materials, which are essential for yeast production, would pose an existential threat to the future of the European yeast industry and its world leadership. Any extra-demand for molasses within the EU would significantly exacerbate the severe tension already existing on molasses supplies, with EU importing as much as one third of its need, and prices that have doubled in 2022.

Indeed, RED III and especially **the current position of the European Parliament on this text would further tighten the situation** by providing strong incentives to produce biofuel based on sugar coproducts to meet the ambitious GHG emission reduction targets in transport.

WHAT IS AT STAKE?

- While RED III's goals to decarbonize EU economy are necessary, certain provisions would create a strong incentive to produce biofuels and biogas based on sugar coproducts at the expense of their food uses.
- This incentive would distort the competition to the disadvantage of the European yeast sector for whom molasses is an essential, non-substitutable feedstock, already largely dependent on non-European imports, despite the goal of EU yeast producers to source it locally for sustainability purposes. Zoom 1
- The regulatory status of molasses and low-green syrup (LGS) needs to be clarified as co-products of the sugar production process highly valorized in food & feed. They are not residues since they result from a deliberate choice in the sugar production process between 2 types of crystallization [Zoom 2 & 3]
- The deletion of a separate accounting rule of GHG emissions for biofuels made from residues "fit for the food & feed market" would generate dramatic overuse of these residues in energy production Table 1
- As well as the creation of a feedstock list, including molasses & LGS, for stationary installation to produce biogas
- These elements constitute existential threats to the future of the European yeast sector, useful both for traditional food uses, for a sustainable food chain and promising new green tech uses Zoom 3

COFALEC POSITION

- MOLASSES AND LGS SHOULD NEVER BE INCLUDED IN ANNEX IX OF THE RENEWABLE ENERGY DIRECTIVE (NEITHER IN PART A NOR IN B) AS THEY DO NOT FULFILL THE ELIGIBILITY CRITERIA I Zoom 4
- BIOFUELS FROM RESIDUES "FIT FOR THE FOOD & FEED MARKET" SHOULD NOT BE CONSIDERED AS ZERO GHG CULTIVATION EMISSION AND SHOULD HAVE DISTINCT GHG EMISSIONS ACCOUNTING RULES I Table 1
- MOLASSES AND LOW GREEN SYRUP SHOULD NOT BE ELIGIBLE TO PRODUCE BIOGAS IN STATIONARY INSTALLATIONS OUTSIDE THE TRANSPORT SECTOR, AS THIS WOULD CREATE AN ADDITIONAL SEVERE MARKET DISTORTION
- MOLASSES AND LOW GREEN SYRUP (LGS) SHOULD NOT BE CONSIDERED AS RESIDUES SINCE THEY ARE THE RESULT OF A DELIBERATE CHOICE IN THE SUGAR PRODUCTION PROCESS, I Zoom 2
- THE SIGNIFICANT USE OF MOLASSES AND LGS IN THE FOOD AND FEED SECTOR SHOULD ALLOW THEIR DIRECT INCLUSION IN THE FOOD AND FEED CROP CATEGORY SUBJECT TO CAP I ZOOM 4

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RED III AND RESIDUE BASED BIOFUEL STATUS

Under RED III, targets for renewable energy use in transport will be changed and expressed in relation to GHG emissions reduction in comparison to fossil fuel reference. If biofuels & biogas made from residues "fit for the food & feed market" were considered to have zero GHG cultivation emissions, as proposed by the European Parliament, these feedstocks would be extremely attractive for biofuels and biogas production (Annex V point 18 and Annex VI). Such new incentives would lead to additional competition for molasses and other sugar coproducts, which would increasingly be shifted away from traditional agrifood uses (yeast, fermentation, animal feed) to bioethanol production.

Table 1: Comparison of biofuels' GHG emission

Total emissions for culture, transformation, transport & distribution	GHG <u>emissions</u> (g CO2/MJ)	GHG <u>emission reduction</u> (<u>in</u> % vs <u>fossil</u> fuel)
Fossil fuel reference	94	0%
bioethanol from sugar-based residue* (valeur min)	9,9	89%
bioethanol from sugar-based residue* (valeur max)	29,7	68%
Sugar-based bioethanol from food residue** (minimum value)	19,5	79%
Sugar-based bioethanol from food residue** (maximum value)	39,3	58%

*: if the sugar co-products are considered as "normal" residues

**: if the sugar co-products are considered as "food & feed" residues

WHY IS THE EU YEAST SUGAR COPRODUCTS SUPPLY THREATENED BY RED III?

In view of the trilogue discussions on RED III, the EU yeast sector is facing 4 very worrisome scenarios

SCENARIO 1: If molasses were to be considered as residues "fit for food and feed market" under the European Commission and Council proposal

- There would be no limitation in their incorporation for biofuel production.
- These sugar coproducts-based biofuels would be considered to have the same GHG cultivation emissions as their closest substitute in the food and feed market. In this case, it would relate to sugar beet-based ethanol, contributing to as high as a 79% reduction in GHG emissions in comparison to fossil fuel, which is still a very strong incentive with no cap to control the use. | Table 1 & Zoom 1

SCENARIO 2: If all residues were considered with zero cultivation GHG emission as proposed by the European Parliament in contrast to the Commission and Council proposals (Annex V point 18)

- Not only there would be no limitation in the incorporation of sugar coproducts for biofuel production, but in addition, their use would be highly encouraged since biofuels would be considered as generating 0 cultivation emission to decarbonize transport with emission reduction as high as 89%! Table 1
- Any additional use of molasses or low green syrup to produce bioethanol would further tighten the tension on the EU molasses market and generate a sharp increase of 3rd countries import of molasses | Zoom 1

SCENARIO 3: If molasses were to be included in Annex IX of RED II or RED III as feedstock for advanced biofuel

- As in scenario 2, there would be no limitation in their incorporation for biofuel production and they would also be considered a zero-cultivation emission material, highly favored to produce biofuel
- In addition, RED III sets an additional minimum target of 2.2% of advanced biofuels in the transport energy mix (feedstocks in Annex IX part A). This would create a huge incentive to produce molasses-based biofuels. Zoom 1

SCENARIO 4: If molasses and low-green syrup were eligible to produce biogas for stationary installations outside transport as proposed by the European Parliament (Annex VI point Ba, 2nd part of e.)

By incentivising the use of molasses and LGS to produce biogas in stationary installations, an alternative and competitive market to the critical food and feed sector is added and promoted. This would lead to an even greater structural deficit in molasses supply in the EU and market distortions, at the expense of the food & feed uses.