Sugar beet: Common Organisation of the Market facing challenges

Claude VIDAL

Sugar cane accounts for 70% and sugar beet for 30% of sugar production throughout the world. In the European Union, practically all sugar (98% of total production) comes from sugar beet. The production quotas introduced in 1968 have brought stability to sugar beet production and to areas under cultivation. The number of agricultural holdings producing sugar beet has dropped sharply, falling by 47% in 25 years. This crop, an ideal companion to other arable crops, is found primarily in a few European regions close to processing plants. The sugar beet industry in Europe now faces the need to adapt. On the one hand, it has to maintain profitability while complying with Uruguay Round agreements and Millennium Round negotiations as well as having to cope with particularly low world prices. On the other hand, European Union operators in this sector need to prepare for the arrival of the applicant countries.

Binding international agreements

Under the Marrakech agreements of 1994, the European countries pledged to abide by the rules of the World Trade Organisation (WTO), with sugar quotas fixed each year (Box 1, page 7). In 1997, for the European Union as a whole, quota A was fixed at 12 million tonnes of sugar and quota B at 2.6 million tonnes (including 493,000 tonnes for the French overseas départements and the Azores).

Some 16% of EU-15 sugar beet production in 1997 was non-quota and thus sold off at world prices. However, some of the smaller producer countries (Italy, Greece and Portugal) failed to reach their quotas, while the major producers were well over. France produced 26% of non-quota sugar, with the United Kingdom accounting for 23% and Germany 18% (Figure 1).

Figure 1: Sugar quotas and production, 1997 (excluding peripheral zones)
Non-quota production may increase as a share of total output if the current world situation persists. The Commission recently proposed cutting quotas by 115 000 tonnes from July 2001. This reduction would apply across the board to all national quotas on top of any annual cuts, which are applicable for the first time for the 2000/2001 crop year when national quotas are being trimmed by 498 800 tonnes. For its part, the International Confederation of European Beet Growers (CIBE) is recommending a reduction in areas of 5-10% for 2000/2001, given that the world situation is such that current production levels cannot be maintained while ensuring profitability (Box 2, page 7).

Consequently, any tightening of export restrictions in the new round of talks (Millennium Round) would mean that quotas would again have to be cut.

### European sugar balance: clear differences between countries

Usable production\(^1\) of sugar amounted to 16.8 million tonnes in 1997 and total domestic use in EU-15 was 12.9 million tonnes. The latter figure included 12.6 million tonnes for human consumption, 252 000 tonnes for industry and 8 500 tonnes for animal consumption. The European Union thus has a sugar surplus of 30%,\(^2\) with average per capita sugar consumption of 33.8 kg, nearly twice the world average of 19.2 kg per person. A third of this sugar is consumed directly, with the rest going into food products.

The Union imported 2.2 million tonnes of sugar, most of it cane sugar arriving under preferential customs tariffs from the ACP countries of Africa, the Caribbean and the Pacific. Other imports came from India, Cuba and Brazil and were subject to reduced customs duties in accordance with agreements in the GATT framework (General Agreement on Tariffs and Trade).

Exports amounted to 5.4 million tonnes in 1997, distributed as follows:

- 2.4 million tonnes of non-quota sugar (approximately 6% of world trade), including a third as processed products;
- 3 million tonnes of quota sugar, including 1.8 million tonnes of raw sugar from the ACP countries and India that was re-exported after refining in Europe and 1.2 million tonnes of Europe’s actual sugar quota.

Quotas were introduced to limit production in Europe. A look at the individual countries shows, however, that the situation varies depending on the Member State (Figures 2 and 3).

There are three types of country:

- France and Germany are by far the countries with the greatest usable production, and exports are well ahead of imports. The situation is similar in the Netherlands, Denmark and Austria and to a lesser extent in Ireland and Sweden, although the amounts in question are much smaller.
- In Belgium, imports and exports are greater than usable production. This can be explained by Belgium's special role as a major shipment point for extra-Community exports: 91% of the country's imports are intra-Community compared with 38% of its exports.
- In the United Kingdom, imports match usable production, giving a self-sufficiency rate that is among the lowest in the Union (65%). In the other Member States (Greece, Spain, Italy, Portugal and Finland) imports exceed exports. Per capita consumption is lower than the Community average in the Mediterranean countries: 27.2 kg per person in Greece and 25.1 kg in Italy. The self-sufficiency rate was exceptionally low (3%) in Portugal before a new sugar production unit starts up.

[Figure 2: Sugar self-sufficiency rate, 1997]

\(^1\) Usable production: quantities produced by processing plants, net of production losses.

\(^2\) Self-sufficiency rate = 100% x usable production/domestic use.
Some 2.13 million tonnes of sugar beet were produced on 268 000 holdings in EU-15 in 1997. The crop was grown by 3.8% of all holdings and by 6% of those with arable land. The crop was grown on 2.9% of the European Union's arable land.

A comparison of the figures for EU-9* shows that in 1975 sugar beet was grown on 1.9 million hectares by 366 000 holdings while the 1997 figures were 1.6 million hectares (-16%) and 195 000 holdings (-47%).

The reduction in the number of holdings growing beet is related to the decline in the number of all farms (Statistics in Focus, Theme 5, No 9/2000, "Ever larger holdings but different economic situations"). The number of holdings growing sugar beet has however gone up in Greece (Figure 4).

The areas under cultivation grew smaller in EU-9 (apart from Italy) between 1975 and 1987, declining from 1.86 to 1.63 million hectares (-12.5%). Between 1987 and 1997, the figure remained fairly stable at about 1.85 million hectares in EU-12*.

Sugar beet production expanded in EU-9, growing from 59 million tonnes in 1970 to 87 million in 1984 after major fluctuations between 1981 and 1983 (Figure 5).

EU-9 production peaked at 104 million tonnes in 1981, leading to the introduction of quotas. Since 1984, with quota arrangement performing effectively, there has been little change in production.

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1 Throughout this section, in order to avoid having to consider variations as a result of German unification, EU-9*, EU-12*, D*, etc, do not include the former East Germany.
This general trend has continued in recent years. In EU-15 between 1990 and 1997 the area under sugar beet slipped from 2.23 to 2.13 million hectares (-5%), while production rose from 118.6 million to 121.9 million tonnes (+2.8%).

All this reflects improved yields, which went up by almost 50% in 30 years to reach about 60 tonnes per hectare in 1999.

Sugar production also rose slightly between 1990 and 1997, increasing from 14.2 to 14.9 million tonnes in EU-12* (+5%). The increase was particularly noticeable in the major producer countries: France (+9%), Germany* (+10%), the United Kingdom (+17%) and Spain (+25%). Average sugar yields from beet in the European Union are around 7-8 tonnes per hectare, with the figures ranging from 4 t/ha in countries where the climate is less suitable (Greece, Finland) to 10 t/ha in France (1 kg of sugar per m²). These yields are among the highest in the world, even when compared with the figures for sugar cane.

Cane sugar remains of marginal significance in Europe. Production in the French overseas départements amounted to 271 000 tonnes in 1997 (224 000 tonnes in 1990), i.e. 1.6% of EU-15 sugar production, grown on 38 000 hectares.

The results of the survey on the structure of agricultural holdings 1997 reveal the unequal distribution of sugar beet in Europe (Figures 6-9). A quarter of Europe's regions accounts for almost 90% of EU sugar production. The ten leading regions produce almost half (Table 1).

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<tr>
<th>Region</th>
<th>Holdings with sugar beet</th>
<th>Employment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Production</td>
<td>Sugar beet</td>
</tr>
<tr>
<td></td>
<td>% in EU-15</td>
<td>1000 ha</td>
</tr>
<tr>
<td>Picardie (F)</td>
<td>10.1%</td>
<td>170</td>
</tr>
<tr>
<td>Champagne-Ardennes (F)</td>
<td>6.2%</td>
<td>100</td>
</tr>
<tr>
<td>Niedersachsen (D)</td>
<td>5.6%</td>
<td>130</td>
</tr>
<tr>
<td>East Anglia (UK)</td>
<td>4.8%</td>
<td>104</td>
</tr>
<tr>
<td>Castilla-León (E)</td>
<td>4.3%</td>
<td>86</td>
</tr>
<tr>
<td>Nord-Pas-de-Calais (F)</td>
<td>4.1%</td>
<td>67</td>
</tr>
<tr>
<td>Bayern (D)</td>
<td>3.8%</td>
<td>78</td>
</tr>
<tr>
<td>Nordrhein-Westfalen (D)</td>
<td>3.6%</td>
<td>76</td>
</tr>
<tr>
<td>Région Wallonne (B)</td>
<td>3.5%</td>
<td>61</td>
</tr>
<tr>
<td>Ile-de-France (F)</td>
<td>3.0%</td>
<td>48</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>48.9%</td>
<td>920</td>
</tr>
</tbody>
</table>

Table 1: Importance of sugar beet crop in the leading ten producer regions

⁴ SGM: standard gross margin, expressed in European Size Units (ESUs), see Statistics in Focus, Theme 5, No 9/2000.
⁵ AWU: annual work unit.
Elsewhere in Europe, only Andalusia (Spain) and Madeira (Portugal) grow the crop, producing about 0.3% of Europe's sugar production on 3,200 hectares. On Madeira, the bulk of production is used for rum and is not covered by quotas.

Turnover in the sugar beet sector, estimated at EUR 5 billion, and employment, calculated at 45,000 AWUs (annual labour units), are concentrated in the areas of production. With the addition of other jobs that depend on the industry (transport, etc), the Confédération Générale des Planteurs de Betteraves (CGB) in France has calculated another 90,000 AWUs.

_sugar beet_

since the sugar content deteriorates very fast. Transport costs also limit the collection radius.

In 1997/98 there were 156 plants in operation throughout the Union.
Four French regions account for 23% of sugar beet production

In 1997 four French regions (Picardie, Champagne-Ardenne, Nord-Pas-de-Calais, and Île-de-France) had 25,560 holdings producing sugar beet.

These holdings are big, both in area (78% of them have a utilised agricultural area - UAA - of at least 50 hectares) and in terms of economic activity (85% of them have an SGM in excess of 40 ESUs). The average SGM of these beet growers is 104 ESUs, or six times the European average of 16.7 ESUs per holding.

The UAA of these holdings consists mainly of arable land (93%), producing 85% of their SGM. Sugar beet represents 15% of their arable land area and 23% of the SGM of their arable land crops.

Sugar beet provides growers with a figure for SGM per hectare that is higher than for any other crop, apart from potatoes. This reflects the level of mechanisation, since such costs are not deducted from SGMs.

In terms of jobs, the holdings growing sugar beet in these four regions provide 51,350 AWUs. A fifth of this is hired labour, a figure which is slightly below the Community average of 26.2%. There are also 34 sugar production plants (source: SCEES, French Ministry of Agriculture).

### Table 2: Distribution of arable land by area and SGM in four beet-growing regions in France

<table>
<thead>
<tr>
<th></th>
<th>Area (Mio ha)</th>
<th>SGM (Mio ESU)</th>
<th>SGM /ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>1,434</td>
<td>1,031</td>
<td>0.72</td>
</tr>
<tr>
<td>Beet</td>
<td>385</td>
<td>530</td>
<td>1.38</td>
</tr>
<tr>
<td>Potatoes</td>
<td>97</td>
<td>256</td>
<td>2.63</td>
</tr>
<tr>
<td>Other arable land</td>
<td>661</td>
<td>443</td>
<td>0.67</td>
</tr>
<tr>
<td><strong>Arable land</strong></td>
<td><strong>2,577</strong></td>
<td><strong>2,259</strong></td>
<td><strong>0.88</strong></td>
</tr>
</tbody>
</table>

Sugar and the applicant countries: a new factor

The situation of the applicant countries in relation to beet and sugar varies greatly. Poland, Hungary, Romania and the Czech Republic account on their own for about 85% of sugar beet production in all the applicant countries, in spite of low yields (Table 3).

Poland has already introduced rules that are very similar to Europe's arrangements for sugar. The Czech Republic and Hungary are preparing similar sets of rules.

The main points at discussion in the enlargement talks, with regard to sugar, concern:
- the timetable and arrangements for aligning domestic prices;
- compliance with the principle of budgetary neutrality for beet growers and the repercussions of enlargement for the industry in the European Union;
- the terms for the European Union's assumption of the applicant countries' commitments under the Uruguay Round agricultural agreement and of any that may be adopted during the next round of WTO talks.

### Table 3: Area, production and yield in the main beet-growing applicant countries, 1997

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th>Hungary</th>
<th>Czech Republic</th>
<th>Romania</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sugar beet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area (1,000 ha)</td>
<td>419</td>
<td>98</td>
<td>92</td>
<td>129</td>
</tr>
<tr>
<td>Harvest (mio t)</td>
<td>15.9</td>
<td>3.7</td>
<td>3.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Yield (t/ha)</td>
<td>38</td>
<td>38</td>
<td>40</td>
<td>21</td>
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<tr>
<td><strong>Sugar</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production (Mio t)</td>
<td>2.24</td>
<td>0.49</td>
<td>0.61</td>
<td>0.21</td>
</tr>
<tr>
<td>Consumption (kg/person)</td>
<td>42</td>
<td>46</td>
<td>44</td>
<td>20</td>
</tr>
<tr>
<td>Self-sufficiency</td>
<td>136%</td>
<td>103%</td>
<td>133%</td>
<td>46%</td>
</tr>
</tbody>
</table>

^6 The other's are: Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Malta, Slovakia, Slovenia, Turkey.
Box 1: Tried and tested European rules

Since 1968 sugar production in the European Union has been subject to a common organisation of the market (Regulation (EC) No 2038/1999, currently in force). It is based on the following principles:

- quotas allow production to be controlled; Since 1968 sugar quotas have been allocated to the Member States, who pass them on to their sugar producers. There are two kinds of quota: Quota A guarantees producers a price that is not less than 98% of the intervention price, which since 1984/1985 has been steady at about EUR 632 per tonne. In the case of quota B, market circumstances determine whether a higher levy is applied (up to 37.5% of the intervention price). Surplus quantities are non-quota (C sugar) and subject to world prices.
- growers and manufacturers finance the cost of exporting the European Union's surplus sugar;
- preferential import arrangements for raw sugar from developing countries guarantee supplies for Community refineries.

The most recent changes to this common organisation of the market were adopted by the EU Council of Ministers in 1995, when the arrangements for quotas and budgetary neutrality were extended until July 2001. However, on 4 October 2000 the Commission adopted a proposal to amend the common organisation. This will bring in transitional arrangements lasting until 30 June 2003.

Box 2: World prices at record lows

World trade in sugar amounted to 38 million tonnes in 1998/99, compared with 33 million tonnes at the start of the decade. World prices have been affected by the constant availability of vast amounts of Brazilian sugar over the last ten years: from 1.2 million tonnes in 1989/90 to 9 million tonnes in 1998/99. The reasons for this have been the stagnation of the sugar-alcohol sector in Brazil and the increase in areas under sugar cane.

The world's sugar supplies are rising for the fifth year in a row, with the result that prices have been going down since the start of 1998. The world price for sugar stands at about 6 cents per pound, which is less than the cost of producing it, regardless of country. It is estimated in fact that it costs 7-8 cents to produce a pound of raw sugar in Brazil, 9-10 cents in Australia and 18 cents in the United States and Europe (source: Confédération Générale des Planteurs de Betteraves).

There is currently a improvement as prices begin to rise, but the situation of the world sugar market remains uncertain.

Sources of data on sugar beet production

A variety of sources have been used for this edition of Statistics in Focus:

1 - The survey on the structure of agricultural holdings records in a uniform manner information on areas under beet and on the number of holdings that grow it (heading D/11). Data have been specially retrieved to produce a clearer profile of beet farms (division of UAA, SGM, labour, etc) in the main production regions.

2 - The agricultural production database contains annual national data on areas, production and yields. A balance for beet/sugar in the European Union has been compiled since 1973.

3 - DG AGRI provides data on quotas, production and yields at regional level.
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<td></td>
<td>Tel. (352) 43 35-2251</td>
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