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Fresh Deciduous Fruit

Raspberries Annual

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Report Highlights:

Serbia exported a total of 78,070 MT of raspberries in CY2002, valued at 90 million USD. Average yields in 2002 were up significantly at 10 MT/HA (versus usual levels of between 6 to 8 MT/HA). Serbia produces almost one-third of the world's raspberries, but exports tend to be in frozen fruit and mixtures to due lack of quality control and logistical problems.

Includes PSD changes: No
Includes Trade Matrix: No
Unscheduled Report
Sofia [BU1], YI

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Executive Summary

Serbia's 2002 exports of raspberries (at USD 90 million in value) were the only bright spot in a year of low-value export sales. This is a remarkable accomplishment for an industry where the average farm size is less than 1 HA. In 2002, Serbian raspberry farmers were blessed with good weather, tax benefits and strong export demand. However, raspberry producers suffer from the same problems as other agricultural farmers and exporters in Serbia: an inability to capture the high value market due to poorly organized producers, concentrated processors and limited knowledge of export markets. While the Serbian government is keenly aware of the potential for raspberry sales in Western Europe, they still maintain raspberries on the list of so-called "strategic crops" and reserve the right to intervene in the sector.

Weather in 2002

Weather conditions during spring 2002 were quite favorable for crop development. Overall, April frosts did little damage and weather conditions remained good during harvest. However, hot weather in May 2002 limited raspberry fruit growth in selected parts of Serbia. Rains, which started at the beginning of July, prolonged the 2002 harvest. In the first part July, raspberry quality was reported to be excellent but in the second part of the harvest, heavy rain damaged the fruit. None-the-less, raspberry yields averaged 10 MT/HA which is the highest level over the last three years.

Production

Total production of fruit (raspberries, strawberries, blackberries, apples, pears, apricots, cherries, plums, peaches and quinces) in Serbia in 2002 was 593,145 MT or 25 percent less than in 2001 and even 43 percent less than the 10-year-average. The area under raspberry cultivation expanded over the last three years. In 2002, raspberries were grown on 10,519 HA (vs. 9,000 HA in 1999). New plantings will increase the total area under cultivation to an estimated 13,000 HA by 2005. Raspberry production in Serbia depends greatly on weather conditions.

According to the Serbian Fruit and Vegetable Association, profits realized by raspberry producers were higher in 2002 than in the previous three years. Originally, forecasts called for 2002 production levels at 68,000 MT, but post-harvest estimates were just below 94,000 MT. Production of raspberries in 2003 is forecast at 85,000 MT according to the Serbian Chamber of Commerce (Association of Fruit Producers).

Production of raspberries in Serbia

| Fruit | 1990 | 2001 | 2002 | Forecast for 2003 |
|--------------------------------|--------|--------|--------|-------------------|
| Raspberry (MT as fresh weight) | 34,341 | 77,781 | 93,982 | 85,000 |

Production of Varieties

Between 90-95 percent of Serbian raspberries are the North American “Williamette” variety from Oregon. Other raspberry varieties include “Meeker”, “Promise” and “Gradina” from Europe. Average raspberry plots in Serbia are very small in size at between 0.05 HA and 1 HA. Raspberry farms are usually family owned seasonal businesses. Seasonal workers hired in June and July (mostly women) labor at harvesting by hand. There is no official system of standardization and classification for fresh berries in Serbia. Thus, farmers face problems when selling their products to brokers, processors or cold store plants.

Raspberries in Serbia are classified in four groups when traded:

- 1) Individual quick frozen/IQF raspberries are a top quality product used mainly in cake production. Each berry must be separated, whole, undamaged, without mold, with minimum foreign ingredients and organic ingredients (leaves). The product must be clean, healthy and with a maximum of 5 percent of broken berries.
- 2) Broken fresh raspberries may be chopped or ground. Raspberries must be clean, healthy, without mold and other foreign ingredients. Broken raspberries are sold mainly to the dairy industry for fruit yogurt.
- 3) Raspberry mixtures which consist of 40-50 percent individual quick frozen raspberries, 20-30 percent chopped raspberries and 20 percent broken raspberries. Mixtures are being prepared according to a buyer’s request and usually with a signed contract. Raspberry mixtures are used in bakery items and for jams.
- 4) The frozen raspberry block comes from the remainders of individual quick frozen raspberries (above). This product contains low quality, damaged raspberries, with mold and rot of max 5-10 percent. Frozen blocks are used in production of fruit juices and must be further processed to eliminate pathogens.

The main regions of raspberry production in Serbia are:

- West Serbia (Arijlje, Cacak, Guca, Ivanjica, Pozega, Ljubovija) which produces 60 percent of total raspberry output by volume.
- Central Serbia (Valjevo, Osecina, Pecka, Mionica) which produces 30 percent of total raspberry production.
- South-West Serbia (below Kopaonik mountain, Brus, Prokuplje, Kursumlija) produces 10 percent of total raspberry production.

The best land for growing raspberry plants are valleys at 400-800 meters above sea level. Raspberry plants can produce at full output for 10 years, and start to yield berries after only two years of growth (i.e. in the 3rd year full production is obtained). The Serbian raspberry harvest starts in late June and ends in July, depending on the weather conditions and location of fields. Raspberry plants prefer moderate temperature zones, medium rainfall and maximum temperatures 28-30 C, found mainly in West and Central Serbia.

Local raspberries are varieties delicate and must be frozen the same day as picked (in 2-3 hours is best) or carefully boxed and chilled. Serbia uses only 10-16 percent of its raspberry production for domestic consumption, and most of this is sold in loose, bulk at open green markets. Roughly 90-94 percent of all output is further processed or frozen and then exported. The Serbian processing industry uses only small quantities of raspberries each year for domestically produced juices, yogurt, jams, and bakery items.

Infrastructure

Raspberries are grown by small family owned farms on an average sized plots of 0.5 HA. Most work is done by hand. Some machinery is used in the preparatory phase (i.e. motor cultivators). The picking or harvesting is done only by hand with a large number of seasonal workers.

After the harvest in June-July, farmers sell fresh raspberries to middleman/brokers or directly to freezing companies, or sometimes (albeit rarely) directly to exporters. Almost 90 percent of Serbia's berry production is frozen in cold storage plants, while around 10 percent remains in Serbia for use by the processing industry, or sold in open green markets and supermarkets. Most fresh raspberries are sold and consumed during the summer season. The majority of Serbian raspberries for export are frozen (84 percent), while a smaller amount is chilled (16 percent) and sold fresh for export. Raspberries are frozen at the temperature of – 40 C and are

stored at temperatures of –18 to –20 C. Chilled raspberries are cleaned, prepared and stored at 0 C. Chilled raspberries are transferred by refrigerated trucks and produce must be delivered to the destination within a maximum of three days. Chilled raspberries are often further processed for juice and concentrates.

Serbian consumers prefer fresh, not frozen fruits. Further, Serbia does not have developed commercial production of puddings, yogurt, cakes, ice cream and bakery items due to the lack of new technologies. Most cakes and bakery items are produced at home. In urban areas, new supermarkets are promoting their own brands of cakes and bakery items. This trend will probably develop alongside changes of working hours. Serbia consumes small quantities of raspberries in local fruit juice production and has a very small production of puree (due to the lack of production technologies). Currently EU companies buy Serbian broken and frozen raspberries to produce purees and processed products, which are then re-exported.

Trade and Export markets

Fruit export (raspberries, strawberries, blackberries, apples, pears, apricots, cherries, plums, peaches and quinces) in Serbia were very high last year, with over 200 million USD in revenue. Almost 50 percent of Serbia's total fruit exports are raspberries. This high export level was possible given the high berry production in 2002. In addition, some special Government of Serbia (GOS) measures helped raspberry production. For example, tax-free inputs –such as farm chemicals-- were available to many farmers. There was a shift from wheat to fruit products thanks to GOS financial incentives. Raspberry exporters received a GOS export subsidy of 1 percent per exported invoice value. This 1 percent was paid to exporters by the Serbian Ministry of Foreign Economic Relations. Exporting firms had to provide original export customs documents to the National Bank of Serbia (NBS) and the Serbian Fund for Fruits with exact details of the quantity of raspberries exported and amount of foreign currencies received. Export sales data as verified by the NBS and Serbian Association of Fruits was forwarded to the Ministry of Foreign Economic Relations. Final payment in YU dinars was made directly into the Serbian company's account.

Since the lifting of economic sanctions in early 2001, European buyers have actively sought to buy Serbian-origin berries. However, EU buyers complain they are not able to purchase large quantities of standard quality. Berry farms are slow to expand production, and generate monthly income of less than 250 Euro. Farmers face a range of problems: no credit, limited direct European contacts, no marketing skills, no industry standards. In 2002, farmers claimed the Serbian government reduced its direct price supports. Most raspberry production is in southern Serbia, the least developed part of the country.

Historically, raspberry exports easily generated hard currency profits in European markets. The average annual Serbian raspberry harvest totaled approximately 65,000 MT. For many years, Serbia exported between 45,000 MT and 60,000 MT of chilled/frozen raspberries. The European Union (Germany and France especially) takes almost all of Serbia's raspberries.

Exports in CY2003 are forecast at 78,000 MT. Serbian market analysts expect exports of frozen raspberries will increase over the next 5 years as local farmers expand production. Serbian berries and products are exported by mid sized GOS (state) and private companies as well as branch offices of foreign (mostly German and British firms). Serbian companies complain about strict quality standards required by EU companies. The lack of government support for farmers as well as the lack of credit for export financing has a negative effect on overall production. These factors, together with overall slow development of the Serbian economy, has resulted in limited purchases for domestic processing, especially by smaller firms. In general, the fruit distribution and processing industry in Serbia suffers from inefficiency and lack of standards.

Many seasonal companies with foreign financing also purchase fresh produce directly from farms. They contract with Serbian freezers for processing and then transport frozen or pureed raspberries to EU markets by truck. In the past some EU companies mixed and repackaged Serbian raspberries with other origin labels and then re-exported Serbian fresh, chilled raspberries to Australia, Japan, Far East and even the United States (by air).

Frozen raspberries are transported by frigo-trucks while chilled raspberries are transported by special refrigerated tankers. Due to high demand for trucks during the harvest season, traders often have problems organizing transportation and respecting delivery dates. Serbia has several firms accredited by the EU (Jugoinspekt, SGS) which can provide quantity and quality control of the product before exporting.

Standard packaging for export of individual, quick frozen raspberries is the five-layer carton box, which contains four plastic bags of 2.5-kg net-weight. Ninety percent of all exported raspberries are packed this way. The remaining 10 percent of all raspberries are packed in small cartons, as fresh produce (boxes of 500, 600 and 800 grams). This package is done mainly on importers/buyers request. Most foreign buyers provide Serbian firms with small retail boxes of 500, 600 and 800 grams. This packaging material must meet EU environmental and recycling requirements. Foreign companies also provide pre-printed labels for use in EU supermarkets. Serbian firms do not produce packaging material of adequate quality for the EU market due to the lack of machinery and technology.

Profit margins are potentially larger in sales of small packs of fresh raspberries. These small cartons go directly to EU retail outlets, with limited handling.

Selected Estimates for Margins

| EX WORKS | Est. cost Din(USD)/k g | Sales price Din (USD)/kg | Margin (%) |
|---------------------------------|------------------------------|--------------------------------|---------------|
| Farmer | 30 (0.52) | 40 (0.69) | 30% |
| Cold store process- plant | 46 (0.80) | 87 (1.50) | 53% |
| Exporter | 87 (1.50) | 90 (1.55) | 3% |
| EU Brokers | 90 (1.55) | 300 (5) | 330% |

Source: Yugoslav traders

Cold Store

The largest cold storage plants in Serbia (who are often exporters) are “Arlje”, “Delta M”, “Varvarin”, “Cacak”, “Sapcanka”, “Pecka”, “Ljubovija”, “Kopaonicarka” “Vocar”, “Kosjeric”, “Guca” and “Kostunici”. Many of these import/export companies are involved in raspberry exports. In the past, large state owned companies were involved in export and sales. During the 1990s, raspberry sales were a common way to acquire foreign currency. Even selling raspberries at low prices and with negative profits, Serbian companies could get hard currency which they needed desperately. These trading firms would then sell other products through this process, the profit would compensate for a loss on raspberry sales. Those transactions are not common today given the stable Dinar/Euro exchange rate. This kind of import/export trading for foreign currency gain was done during UN sanctions of the mid-1990s and has been largely discontinued. However, many kinds of firms are attracted by the potential profit margins found in raspberry exports today.

Serbia’s main Europe competitors in raspberry production and trade are Hungary and Poland with production of 25,000 MT and 45,000 MT respectively (2002). Those producers appear better organized and are stimulating exports with an 0.25 Euro/kg export subsidy. In Serbia, the export subsidy is 0.02 Euro/kg.

Better organization of raspberry production, introduction of modern machinery, privatization and more efficient processing units are the main factors which can improve raspberry profit margins in production and exports. Farmers need to be educated on planting, irrigation, frost protection, chemical use, residue testing and new varieties. Recent EU tests of some processed Serbian raspberries turned up unacceptable levels of heavy metals and farm chemicals.

Export of raspberries from Serbia

| Year | Exported (MT) | Revenue (million USD) | Avg USD /MT |
|------------------|---------------|-----------------------|-------------|
| 1998 | 63,815 | 62,725 | 983 |
| 1999 | 64,680 | 57,704 | 892 |
| 2000 | 60,824 | 62,759 | 1032 |
| 2001 | 68,182 | 66,529 | 976 |
| 2002 | 78,070 | 90,176 | 1155 |
| 2003 (estimated) | 85,000 | 97,750 | 1150 |

Source: Fruit and Vegetable Association

Export of raspberries in 2002

| Product | Exported (MT) | Revenue (million USD) | Percent of total raspberry export |
|--|--------------------------|--------------------------------------|--|
| Raspberry individual quick frozen | 24,010 | 35,663 | 32 % |
| Raspberry broken, frozen | 23,372 | 25,045 | 30% |
| Raspberry mixture, frozen | 6,727 | 8,034 | 8% |
| Raspberry block, frozen | 4,909 | 4,240 | 6% |
| Raspberry original, frozen | 5,579 | 5,901 | 7% |
| Raspberry, fresh (chilled) | 13,247 | 11,089 | 17% |
| TOTAL: | 78,070 | 90,176 | 100% |

Source: Fruit and Vegetable Association

Top five destinations of Serbian raspberries in 2002

| Importing country | Exported from Serbia (MT) | Revenue (million USD) | Percent of total export |
|-------------------|---------------------------|-----------------------|-------------------------|
| Germany | 29,562 | 31,133 | 38% |
| France | 11,531 | 14,162 | 15% |
| Austria | 10,117 | 10,245 | 13% |
| Holland | 8,107 | 8,969 | 10% |
| Belgium | 7,019 | 7,965 | 9% |
| Other countries | 11,734 | 17,702 | 15% |
| Total: | 78,070 | 90,176 | 100% |

Source: Federal Statistical Office

Germany is the top destination country for Serbian raspberries with almost 30,000 MT (worth 31 million USD) exported during 2002. Second on the list is France with 11, 530 MT (worth 14 million USD) followed by Austria, Holland and Belgium. In 2002, roughly 420 MT of frozen raspberries were exported to the U.S. valued at 394,000 USD.

Marketing

Serbian raspberry farmers suffer from the same marketing problems as other agricultural producers and exporters in Serbia: an inability to capture the high value market due to poorly organized producers, an oligopoly of processors and limited knowledge of export markets.

Serbian fruit farmers are frustrated because commercial contacts with European buyers dried up during ten years of economic sanctions from 1990-2000. Middle men with small trucks purchased entire crops at low prices during harvest time. Buyers were paid cash and farmers never knew the final destination of their product. The farmers suspect their berries are labeled as EU-origin and sold in Austria, Germany and other EU countries at high retail prices.

During the harvest season (June-July), farmers or vendors traditionally sell fresh raspberries locally either in plastic baskets containing 2.8 kg of fruit or in small boxes of 200 and 500 grams. Sales are made from the back of trucks or from stands at the open

air green markets. With the opening of two foreign hypermarkets in 2002 and dynamic growth of many domestic supermarkets, some changes in fresh raspberry sales will be seen in 2003. For example, a change in retail structure is driving consolidation of wholesale suppliers. Hypermarkets from large urban areas (Belgrade, Nis, Novi Sad) prefer to contract with individuals or supplier groups which can guarantee quantity and quality.

Serbian export of chilled and frozen raspberries is carried out mostly by private Serbian companies. Some foreign firms (mostly joint-venture companies with German or British capital) set up purchasing points or pre-contract with Serbian farmers. However, the bulk of export sales are handled by Serbian companies.

Export product is purchased either directly from farmers or –more often-- from local cold storage firms or freezers. During 2002, 17 percent of exported raspberries were sold as chilled and 83 percent of the volume was sold frozen. Fresh raspberries are difficult to transport because they are sensitive to high temperatures and humidity. Many firms must deliver fresh raspberries to local freezers during the night since temperatures in June and July are usually very high and local refrigerator trucks are scarce.

Prices

Every year before the harvest, the Fruit and Vegetable Association, raspberry farmers, freezer companies and exporters meet to "agree" on the wholesale price which will be paid to the farmers. In 2002, this meeting was held on May 22. It was decided that farmers would be paid 40 Din/kilo (0.67 USD/kilo) for so-called first class raspberries and 30 Din/kilo (0.5 USD/kilo) for second class raspberries. Almost 90 percent of produced raspberries were first class quality. In 2001, the average price of raspberries was 50 din/kg (0.80 USD/kilo). In May 2002, production of raspberries was forecast at record levels and this pushed prices down. Farmers were very unhappy with the final price but were forced to sell their berries for the agreed price.

In 2002, most cold store plants paid 46 dinar/kilo for raspberries delivered to their facilities. Serbian traders/exporters buy a final frozen/chilled product from these freezer companies for the following average prices in 2002:

- Raspberry, IQF: 1.45 USD/kg
- Broken raspberry: 1.20 USD/kg
- Raspberry mixes: 1.30 USD/kg
- Raspberry block: 1.00 USD/kg

Serbian traders sell raspberries to EU brokers for 3-4 percent commission.

Policy

While the Serbia government is keenly aware of the potential for raspberry sales in Western Europe, they have been unable to resist intervening in the sector – with good intentions, but often with limited success. The GOS supports exports of raspberries by paying a 1 percent export subsidy per the GOS regulation published in the “Official Gazette 89/94”. This subsidy is paid on the export invoice value and can be given either to the processor or exporter. The GOS has been paying the export subsidy through the Serbian Ministry of Foreign Economic Relations. Raspberry exporters are considering requesting a new export subsidy, claiming that 12 years ago in the old Yugoslavia this subsidy was 16-18 percent of export value.

2003 Forecast

Total 2003 production of raspberries is forecast at 85,000 MT, but with favorable climate conditions this can be exceeded easily. Since raspberry production mainly depends on the weather conditions it is difficult to forecast. Early spring conditions have been mixed, with some cold, wet weather delaying plant development. The GOS export subsidy of 1 percent will remain the same in 2003.

Serbian companies are also looking forward to getting U.S. approval for "Most favored Nation" status. The resulting lower tariffs will probably shift export revenue from EU companies to Serbian companies and stimulate longer distance exports via air/water transport of frigo-containers to the United States.

Note: In February 2003, the Federal Republic of Yugoslavia was renamed Serbia and Montenegro. The former Yugoslavia, once a union of six republics, splintered in the 1990s. The renaming reflects the two remaining republics, Serbia and Montenegro. The new government will be a loose union, linked only by a small joint administration in charge of defense and foreign affairs. Until a new parliament and president are elected, the existing federal institutions and laws will remain in place.

The Republic of Serbia legally includes the provinces of Vojvodina and Kosovo. However, on a practical level, there are three separate customs zones with different regulations:

- Republic of Serbia (including Vojvodina, but not Kosovo).

- Republic of Montenegro.
- Kosovo Province where the UN together, with the provisional local government, has established some customs and tariff codes.

Thus, Serbia and Montenegro schedules and tariffs are only being applied in the Republic of Serbia at present, while Montenegro and Kosovo have separate customs laws. Serbia and Montenegro are currently working on harmonising two Custom Laws and final agreement is expected by mid-2003. End Note.