KEY INFORMATION:

NAME:
Family: Rosaceae
Scientific of the commercial variety: Fragaria x ananassa
Common names: Strawberry

CLIMATE CONDITIONS:
Strawberry adapts easily to many types of climates and a large range of temperatures as long as the average value per year is around 15-20ºC, and plants are good-protected from strong wind. Its vegetative part is highly resistant to frost which can withstand temperatures of up to -20ºC, although the floral organs are destroyed with values somewhat below 0ºC. However, in order to produce abundant vegetation and fruits, the strawberries need to accumulate some cold hours with temperatures below 7ºC. At the same time, they can support really hot temperatures of up to 55ºC. Rainfall and drainage should be uniform. The minimum rainfall required in dry land is around 600mm, and it should reach up to 2000 mm during the autumn crop cycle.

CROP SEASON:  
<table>
<thead>
<tr>
<th>FRAVARIA X ANANASSA</th>
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<tr>
<td>January</td>
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MAIN PRODUCTION AREAS:
Widely grown throughout the globe, Spain is one of the largest strawberry producers worldwide and is currently the leading exporter country in the world (35%). Nationally, Andalusia is the community which produces the highest quantity of strawberries, followed by Galicia and Cataluña. The requirement of cold hours forces plants to develop in high latitudes (Northern Spain) before being transported to Andalusia to bear fruit.

HUELVA, one of the 8 provinces of Andalusia, IS GLOBALLY RECOGNIZED AS ONE OF THE BEST PLACES TO CULTIVATE THIS JUICY FRUIT. Its soil characteristics, climate, and the availability of good-quality water explain the high-quality crops.

PRODUCING COUNTRIES:  
[Flags of producing countries]

LEADING EXPORTER COUNTRIES:  
[Flags of leading exporter countries]
Q1. A sweet hybrid
The generic name of this bright and red-coloured family, Fragaria, comes from the Latin word “fraga”, which is derived from “fragum” and “fragrante”. It refers to the sweet fragrance and flavour of the fruit. The first cultivated variety in the XVII century was the wild specie called Fragaria vesca L.

At present the commercially varieties are hybrids which might greatly differ from others due to their characteristics: colour, size, shape, flavour, fertility degree, season of maturation, sensitivity to diseases and the constitution of the plant.

Among all the different species, the most consumed and appreciated variety is Fragaria x ananassa, familiarly known as strawberry.

The sensitivity to the day-length and the photo-period type highly affect the growth, development and flowering habits of strawberry crops. For this reason, they can be classified under three groups according to the sun exposition: short-day, long-day, and day-neutral plants.

Q2. The importance of an optimal soil
The characteristics of the terrain should be determined in order to get a high-yield strawberry production and a proper development of the fruit.

These perennial plants grow satisfactorily in a wide range of soil types, from sandy to loamy-sandy soils, which are usually fluffy, aerated and well water-drained, with a balanced composition rich in humus (levels from 2% to 3% of organic matter), and a slightly acidic pH around 6.5.

In this case, the favourable granulometry for field-grown strawberries could be:

- 50% siliceous sand
- 20% clay
- 15% limestone
- 5% organic matter
- 10% other substances

Q3. The winning dessert
This bright and red-coloured fruit is widely consumed either fresh or treated. Strawberry derivatives products such as juices, slices and flavours, are highly used in the preparation of food and beverages, such as delightful juices and smoothies, flavoured milks and milkshakes, yogurts, ice-creams, pies, etc.

“Strawberries and cream” is a smooth and sweet dessert enjoyed at every Wimbledon tennis tournament in Britain.

It is believed that Thomas Wolsey, the king Henry VIII’s right-hand man, first served this sweet course at a banquet in its palace in the early sixteenth century.

Q4. Last campaign
According to data from the last campaign, the total strawberry production in Huelva reached 340,000 Tn, 97% of the national production, of which around 70% were exported.
# STRAWBERRY’S BENEFITS

<table>
<thead>
<tr>
<th>Immune Health Support</th>
<th>Bones Health</th>
<th>Healthy skin</th>
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</thead>
<tbody>
<tr>
<td>Vitamin C: Aids prevent and treats cold and flus</td>
<td>Vitamin C</td>
<td>Vitamin C: Maintains healthy skin, prevents wrinkling &amp; acne</td>
</tr>
<tr>
<td>Manganese</td>
<td>Folic Acid: Contributes to normal blood formation</td>
<td>Folic Acid: Prevents stroke</td>
</tr>
<tr>
<td>Phenolic Flavonoids</td>
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<tr>
<th>Natural Preservative</th>
<th>Prevention of Cardiovascular Diseases</th>
<th>Aids digestion process</th>
</tr>
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<tbody>
<tr>
<td>Vitamin C</td>
<td>Vitamin C</td>
<td>Fiber</td>
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<tr>
<th>Pregnancy control and healthy baby</th>
<th>Cancer Prevention</th>
<th>Eye Health and Care</th>
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<tbody>
<tr>
<td>Manganese</td>
<td>Vitamin C</td>
<td>Vitamin C</td>
</tr>
<tr>
<td>Folic Acid: Essential nutrient which prevents birth defects</td>
<td>Folic Acid</td>
<td>Lutein</td>
</tr>
<tr>
<td>Phenolic Flavonoids</td>
<td>Phenolic Flavonoids</td>
<td>Zeaxanthin</td>
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<tr>
<th>Circulatory system</th>
<th>Boost Body Renewal</th>
<th>Powerful Antioxidant Activity</th>
</tr>
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<tbody>
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<td>Vitamin C: Prevents anaemia by helping in the absorption of iron</td>
<td>Manganese: Contributes to renewal cells and tissues, as well as to produce normal energy-yielding metabolism</td>
<td>Vitamin C: Protects cells from oxidative stress</td>
</tr>
<tr>
<td>Folic Acid: Contributes to normal blood formation</td>
<td>Folic Acid: Participates in the Amino acid synthesis</td>
<td>Manganese</td>
</tr>
<tr>
<td>Potassium: Controls blood pressure</td>
<td></td>
<td>Phenolic Flavonoids</td>
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<th>Brain Function &amp; Neurological System</th>
<th>Anti-inflammatory</th>
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<td>Vitamin C: Prevents stroke</td>
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</table>
FROM GARDEN TO TABLE

Bordas has a long tradition in the elaboration of citrus and others fruits and vegetables derivatives. As we have our own cultivated lands, every step in the production processes is controlled exhaustively by our control department, guaranteeing the traceability and the highest quality of each organic and natural product.

CANDIED · CELLS · COMMINUTES
CONCENTRATED · DEHYDRATED
JUICES · PEELS · PULPS · PUREES
SLICES · WHOLE FRUITS & VEGETABLES

APPLICATIONS

FOOD
Fresh food
Preserved food
Frozen food
Pre-cooked convenience food
Pre-prepared convenience food

SWEETS & PASTRY & BAKERY FOOD
Breads
Sweets
Mermelades & Jams
Goodies

DRINKS
Water
Refreshing Drinks (Sodas, juices...)
Alcoholic beverages

PHARMACEUTICAL PRODUCTS
Medicines
Over-the-counter products
Sports Supplements

CHEMISTRY
Chemical Fertilizers

COSMETICS & TOILETRIES
Oral care products

ANIMAL FEED & WELFARE
Feed
Drinks
Veterinary products
Supplements

BABY FOOD & CARE

HIGHEST QUALITY SOLUTIONS TO DIFFERENT INDUSTRIES
BORDAS ACTIVITIES MEET ALL THE DEMANDS AND INTERNATIONAL STANDARDS TO QUALITY, THE ENVIRONMENT AND SOCIAL RESPONSIBILITY.

SUSTAINABLE DEVELOPMENT

Our strategic framework has been developed with the purpose of respecting and protecting our environment, producing our own energies and reducing wastes.

Due to our highly engage, we have stretched our horizons in order to ensure a comprehensive and lasting change in our world.

Bordas’ industrial facilities counts with sustainable buildings with photovoltaic panels and a last-generation wastewater treatment plant that allows the supply of water in an uninterrupted manner in our factory.

CORPORATE SOCIAL RESPONSIBILITY

Since our company was founded in 1922, there have been two general principles that have characterized our company regarding Social Ethics: The safeguarding of Social Responsibility and the compliance with national and international requirements and laws in those countries in which we develop our business activities.

At Bordas, we focus strongly our efforts on promoting health, safety, no-discrimination and honest work conditions to our employees and local communities in where we operate.

QUALITY COMMITMENT & CUSTOMER SATISFACTION

Our customer-oriented philosophy, great expertise and know-how, are factors that make us able to meet closely our customer needs, and to develop innovative tailor made solutions to each project with the highest quality and operational excellence, enhancing customer satisfaction.

Every solution is created following and getting ahead of the olfactive trends, continually exceeding the most daring expectations with winning projects.

DISCOVER WHAT BORDAS CAN DO FOR YOUR BUSINESS:

If you need any further information, please, feel free to contact our Fruit Derivatives Department:

CONTACT
Fruits Derivatives, Sales Manager
fruitderivatives@bordas-sa.com