# AGRICULTURE AND AGRIPROCESSING INDUSTRY

in the Republic of Macedonia



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### Excellent Supply

The combined of the mediterranean and continental climate offers an excellent supply of quality products

### EU Standards Applied

Introduction of both GLOBALGAP and HACCP as national standards

### High Performance Sector

The agribusiness industry develoment is rated with +10.2% in the last three years

### Exceptional Business Conditions

Flat taxation, great agriculture incentives, and special conditions for your investment

### Diversified Products

A variety of the best tastes of agriprocessing products

# Why Invest in Agribusiness in Macedonia?

The agriculture production and agribusiness sector are the most important economic sectors of Macedonia. Almost 435.500 people, out of a population of 2 million, make whole or part of their income from agriculture activities. The great natural preconditions and an existing tradition enriched with newly developed skills create a variety of opportunities in agriculture, from high mountain pastures of over 2000m high, to the rich water valleys with a Mediterranean climate. The agribusiness industry in Macedonia is one of the fastest growing industries with an over 10% increase in the last three years. Adding value to the excellent quality agricultural products, as demanded by the main European markets, is one of the core Macedonian businesses. Our exporters have applied EU safety standards and have largely opened the doors to new markets.



# Agriculture Sector Structure and Performance

Agriculture, with the inclusion of hunting, forestry, and fishing, is the third biggest sector by participation in the GDP, regarding the services and industry. If the processing industry were to be included, the percentage would increase up to 16%.

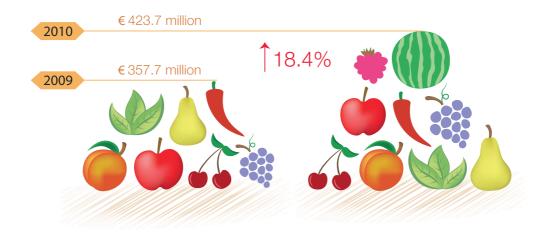
Trade exchange with agricultural-food products in 2010 amounted to more than  $\in$ 955 million. EU-27 is the most important trade partner of the Republic of Macedonia. Foreign capital of nearly  $\in$ 30 million has been invested in the agriculture sector in the past 5 years. In 2010, the average gross monthly salary in this sector was  $\in$ 320.

The agriculture sector is supported by a well developed educational system consisting of 7 faculties specializing in the agriculture field. Additionally, there are secondary schools with branches in agriculture and forestry in 10 cities throughout Macedonia.

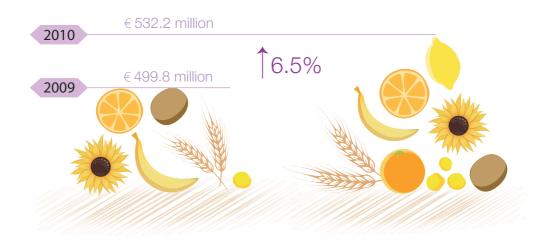
# Agricultural enterprises: Family owned agricultural holdings: Ratio of ownership: of a farm in private ownership: 1.47 ha

#### Facts about the agriculture sector:

#### Export of agricultural food products



Import of agricultural food products



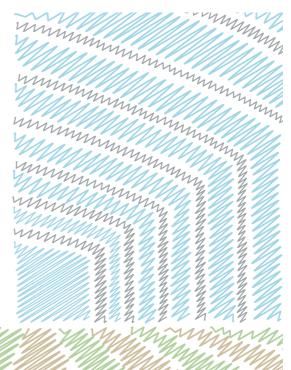
The Republic of Macedonia's most important partner for trade exchange with agricultural-food products in 2010 was CEFTA, with a total trade value of  $\in$ 393.7 million, while the second most important partner was the EU with trade valued at  $\in$ 390.1 million.

# Fresh Vegetables

The production of fresh vegetables is carried out in enclosed or protected areas of glass or greenhouses, with a surface area of about 4,050 ha. The area under glasshouses is around 216.3 ha, while the remaining 3,832 ha are under plastic foil. The enclosed areas of fresh vegetables have greatly increased in the last decade. In 2010, areas under greenhouses have increased nearly 20% in comparison to the areas in 2009. The production of early vegetable crops in 2010 has increased approximately 35% in comparison to 2009.

#### Areas and production in greenhouses 2010

TOMATOES 16,464 tons CUCUMBERS 8,661 tons SWEET PEPPERS 548 tons CABBAGE 660 tons



The production of vegetable crops in exposed conditions is located predominantly in the southern parts of the country with a Mediterranean climate (Strumica, Gevgelija, Valandovo), as well as the eastern and northern parts of Macedonia (Kochani, Radovish, Skopje, Kumanovo), with a mild continental climate and a total harvested area of approximately 42,366 ha in 2010.

#### Production of vegetable crops - late plantations 2010

### TOMATOES

Area in ha: 5,665 Production in tons: 168,010

### WATERMELONS

Area in ha: 5,732 Production in tons: 134,885

### POTATOES

Area in ha: 13,398 Production in tons: 202,325

#### PEPPERS

Area in ha: 8,474 Production in tons: 168,150

#### BEANS

Area in ha: 13,285 Production in tons: 12,070

### CABBAGE

Area in ha: 4,695 Production in tons: 149,157



Macedonian fresh vegetables are exported to the former Yugoslavia region as well as to the EU countries. The export value has increased nearly 30% in the past year alone, and the growth has been in double digits in the past several years as well. Standardization in the primary production process is slowly entering the export oriented production farms, introducing GLOBALGAP. However, the number of these farms is very small, while the potential for it is great.



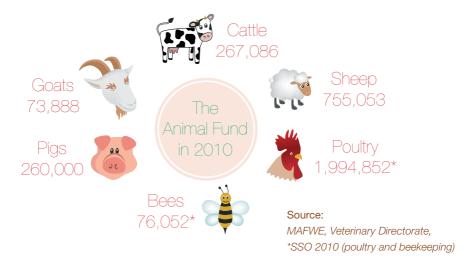
Cattle breeding is a leading branch of the individual agricultural sector, mostly in the hill-mountainous regions. Small individual family farms dominate this branch and produce mainly for personal needs.

As a result of the increased budget support, the number of commercially oriented family farms is growing, while the number of heads in the large specialized cattle holdings is decreasing, due to the dependence on the export of fodder (corn, soya, concentrates).

The most important export oriented product in the cattle products group is lamb meat. Macedonian lamb is a traditional product with extraordinary quality due to the excellent environmental conditions (large hilly pastures, plenty of traditional sheep yards, developed traditional skills etc.)

Lamb production is increasing, as the demand on the export market remains constant. Lamb is mainly exported to the EU countries, accounting for more than €10 million in revenues.

In the last decade, development of fresh broiler chicken farms has been stimulated. Domestic production of chicken has substituted the consumption of imported frozen chicken by almost 40% in the last decade. Macedonia remains one of the important producers in the region with almost unlimited export opportunities in the neighboring countries.



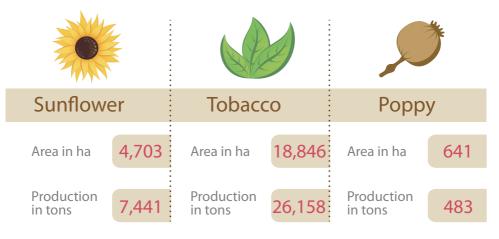
The production of pigs only partly satisfies the domestic consumption. The highest deficit on the domestic market is the cattle meat.

Animal breeding has been improving over the years. It is becoming a modern business with skillful farmers, due to the export requirements that demand a number of food safety standards and good agricultural practices.

## Industrial crops and Oriental Quality Tobacco

Industrial crop areas are comprised of 78% tobacco, 19.5% sunflower, and 2.5% poppy. Tobacco is the most important industrial crop, and the domestic varieties have a specific oriental quality.

#### Areas and scope of production of industrial crops for 2010



Source: MAFWE

Tobacco. The production of tobacco is based on cultivating oriental aromatic tobaccos with small leaves. Tobacco is the greatest contributor to the total export of the agricultural-food products, with an export value of approximately €72 million (in 2010). It is estimated that 42,620 households are engaged in tobacco production and this number has increased significantly over the last few years as a result of high state subsidies in the production of this crop.

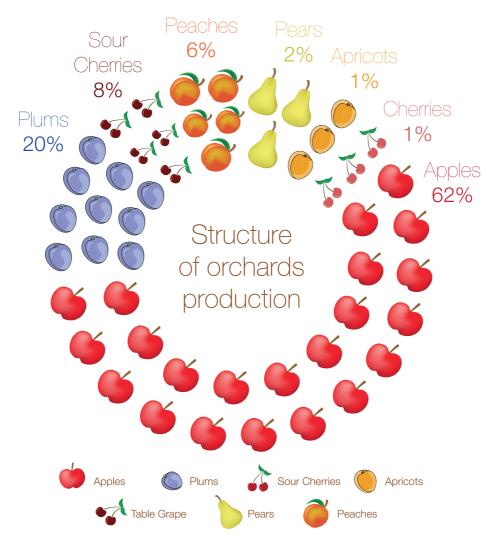
Sunflower. The sunflower is cultivated mainly in the Pelagonija region (50-70%), followed by the Kumanovo and Ovche Pole regions. The annual needs of food oil are about 25 thousand tons from which only 10% are provided from the domestic production.

Opium poppy. Macedonia is an old producer of opium poppy, in accordance with the international agreements, and is entitled to cultivate opium poppy for the production of raw opium in determined amounts.

Fodder and forage crops. The production of fodder and forage crops satisfiesonly 30-35% of the total national need. The deficit of forage crops and fodder is one of the main limiting factors in the development of cattle breeding, which negatively influences the fiscal structure of the production of meat and milk. Forage plants comprise only 9% of the total arable area.

# Fruits and grapes

Orcharding comprises approximately 2.75% of the arable agricultural land or nearly 14,000 ha, with about 9,000,000 stems that are concentrated in regions above the 300m – 800m sea level. Per area, most prevalent are: apples which comprise 62%, plums 20%, sour cherries 8%, peaches 6%, pears 2%, apricots 1%, and cherries 1%. The scope of production is 155,000 tons annually, of which nearly €40 million was exported in 2010 - an almost 100% increase since 2009.



#### Source: MAFWE

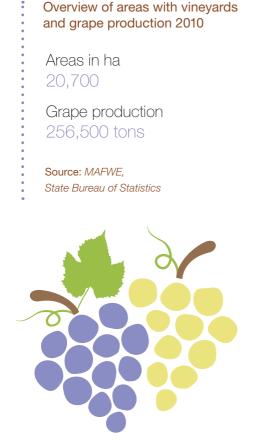
Macedonia is a traditional grape yard region. The production of grapes is largely used for the production of wine, however table grape production is continuously increasing.

The table varieties of grapes are predominantly produced in the Vardar region, with the South-eastern and North-eastern regions following.

Due to a favorable climate, the Macedonian table varieties of grapes are of high quality and exceptional export potential. The variety of table grapes include several classes of very early, to very late types of table grape.

Most widespread table grape varieties in Macedonia are Afus-Ali, Cardinal, Muscat Italy, Muscat Hamburg, and White Winter.

The production of table grapes is organized throughout roughly 25.000 farms, of which 70% are individual holdings and 30% are agricultural companies. The average yields are approximately 10 tons/ha.



# Purchase and export of grapes in kg 2010

Table Grapes Quantity: 17,148,882 kg Value: € 6,595,911

Wine Grapes Quantity: 14,518,814 kg Value: € 2,823,079

Dried Grapes Quantity: 1,444 kg Value: € 9,443

Total Exports Quantity: 31,682,136 kg Value: € 9,428,433

Purchase of wine grapes from domestic cellars 115,542,000 kg

Source: MAFWE

# Organic Food

Organic production is regulated and in accordance with the standards of international and European regulations, since the Law on Organic Agricultural Production was adopted in 2004.

In the Republic of Macedonia there is one certification/inspection body that is nationally accredited by the Institute for Accreditation of the Republic of Macedonia, and authorized by the Ministry of Agriculture, Forestry, and Water Economy (MAFWE) to maintain quality-control in organic production.



Obtaining the certificate gives organic producers the right to use the esteemed national logo for organic products.

The Government effort to improve financial support through a "Program for stimulating and developing organic agricultural production" has contributed to the significant growth of organic production, per number of producers, and per scope of production.

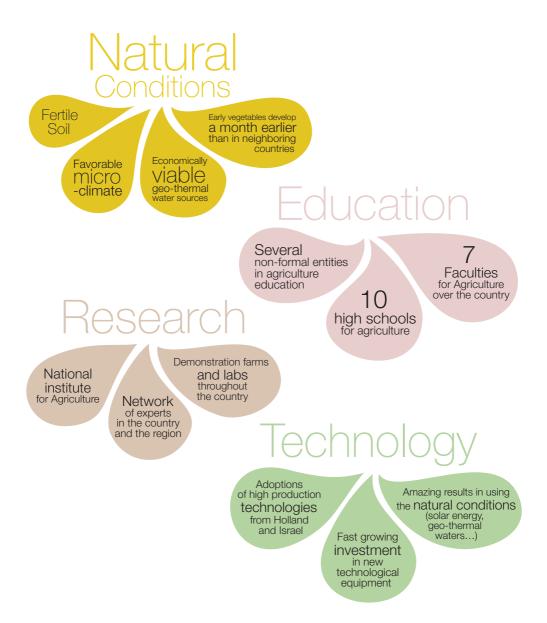
ORGANIC PRODUCTION										
		2009				2010				
		In conversion	Organic	Total/ha		In conversion	Organic	Total/ha		
Cereal		501.52	166.35	667.87		2,723.7	276.1	2,999.8		
Feed		101.04	82.05	183.09		848.9	145.7	994.6		
Industrial		12.31	31.32	43.63		32.1	/	32.1		
Oil		63.78	/	63.78		40.7	6.7	47.5		
Fruit		137.48	73.55	211.03		165.9	168.3	334.2		
Vine		46.25	13.92	60.17		223.6	20.7	244.3		
Garden		84.22	58.64	142.86		164.2	35.7	199.9		
Fallow		7.99	56.81	64.8		306.4	66.3	372.7		

#### Scope of organic production 2009-2010

#### ORGANIC LIVESTOCK PRODUCTION

		In conversion	Organic	Total/ha	In conversion	Organic	Total/ha
	Cattle	180	197	377	2,522	37	2,559
	Sheep	21,844	208	22,052	92,523	6,275	98,798
	Goats	791	248	1,039	2,470	578	3,048





Macedonia and the EU share a very favorable trading regime. Further liberalization as a result of the CEFTA agreement should enhance the competitive position of the Macedonian agribusiness industry.

# Fruits and Vegetables Processing Industry

Most of the processing companies in Macedonia process both fruits and vegetables. Although combined processing (fruits and vegetables) is most prevalent in this industry, it should be mentioned that in most instances fruit processing activity is rather symbolic. Approximately 91% of overall production is vegetable processing, while only 9% is fruit processing activity. The largest portion of processing involves canning, drying, freezing, and combined production lines.

Frozen vegetables are semi-processed products, which are then further used in the food industry. Main dried vegetables are: peppers, onions, leeks, carrots, and parsley. Dried vegetables are mostly exported, whereas only small quantities of dried peppers and onions are sold on the domestic market. Additional products are concentrate, pastes, tomato ketchup, and tomato juice. Traditional products of the Macedonian canning industry are pepper products (ajvar, roasted peppers, lutenica, djuvec), marinated vegetables (pickled gherkins, chili peppers, cabbage, red beets, mixed pickled vegetables, tomato products), pasteurized, and preserved products.

The main frozen fruit product is the sour cherry. The main dried fruit products are plums and raisins. The main fruit processed into concentrate and purée is the apple. The most important finished products (canned or preserved) are pasteurized sour cherries, sour cherries preserved in alcohol, and mixed fruits (compotes, marmalades). Macedonia also produces frozen fruits packed to the customer's specifications that are semi-processed with the intention for further processing within the food industry. The items that are most frequently by the Macedonia processing industry are: ajvar, frozen peppers, processed gherkins, roasted peppers, and chili peppers, to name a few. Red peppers are the most important raw material for the processing industry, and overall pepper-based products are the most dominant in production.

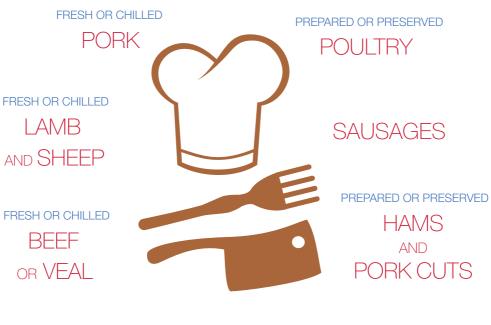
The EU and neighboring markets are the main export destinations for domestically produced processed products. Overseas markets, particularly Australia and the United States, are also important export destinations due to large communities of Macedonian and Balkan region immigrants. The F&V processing industry provided 1.165 full time jobs in 2010 and employed 3.312 seasonal workers. The processing industry has already implemented up-to-date food safety and food quality systems and standards due to it being export oriented.





Currently in the Republic of Macedonia there are 40 registered facilities for the production of meats, and 77 facilities for processing and preservation of meat.

Total meat production in 2010 was approximately 15,500 tons. Main products of the Macedonian meat industry are the following:



# HAMS, SHOULDERS AND CUTS

THEREOF WITH BONE IN, SALTED, IN BRINE, DRIED OR SMOKED (SEMI DURABLE AND DURABLE)

The meat processing facilities are predominantly in accordance with EU safety standards, and there are slaughtering houses that satisfy all the standards and possess an EU export license (EU export number). Due to the large consumption of meat in the region, there are great possibilities for investment in the meat processing industry, especially in the confection of lamb meat and its sales in the EU markets.



Macedonia's combination of a wonderful climate of sunny days and soil conditions comparable to some areas in Italy, France, and Spain, results in excellent ripe and healthy grapes for quality winemaking.

It enables the country to produce some unique varieties such as Smederevka and Vranec that account for 80% of total grape production. A further 18 well-known international varieties such as Cabernet Sauvignon and Chardonnay are used to produce wines that are always uniquely Macedonian and abound in concentrated fruit and aroma.

The average annual production is approximately 90 million liters of which roughly 80% or 70 million liters are exported. The domestic consumption of wine is estimated to be near 15 liters per inhabitant annually.

In 2010, 86 wineries were registered in Macedonia with a total capacity to produce over 250 million liters - more than twice the annual production of wine grapes. The increased number of wineries (mainly comprised of small and mid-size wineries) in comparison to 2003 when there were only 28, is a result of the increased production of high quality bottled wines. The production of high quality wine is assured by controlling the types of grapes, vine plantations, harvest, and sophisticated processing technologies. These methods make Macedonian wines very competitive on international markets.

Wine is one of the most important export products, both in the region and the EU countries. The production of superior, barrique wines is one of the challenges of the Macedonian wineries.



# Investments in Purchasing and Distribution Centers

In order to intensify the investment activities in improving the physical infrastructure in the marketing of agro-food products, the Government provides attractive locations in those rural areas in the country of particular importance for the production of fresh fruits and vegetables that are offered to the interested foreign investors to build purchase and distribution centers.

The function of the centers is to provide easier conditions for sale of fruits and vegetables by improving post-harvesting market infrastructure and application of modern technologies of receiving, selection, calibration, waxing, and storage. Basic criteria that are taken into account to provide suitable land plots for construction of purchase-distribution centers for agricultural products are: close to agriculture production regions, availability of road infrastructure, and the presence of sufficient quantities of agriculture production.

The foreign investors have the opportunity, through a public tender, to apply for places offered for use under a lease of 99 years or to buy the land. The Government of the Republic of Macedonia has reduced the prices for lease or sale of land for this purpose. The continuing technical and logistics support in the administrative procedures during the investment and subsequent operation of the purchase centers, as well as other foreign investments, is provided by Invest Macedonia.



## Policies for Support of Agriculture and Agriprocessing Industry

In order to encourage the necessary investment cycle in agriculture, the Government provides funds to support agriculture and rural development. From these funds, 90% account for direct payment policies, and 10% for policies of co-financing the investments for rural development.

The pre-accession EU support for rural development - IPARD Program Measures provide co-financing in the amount of at least 50% of eligible expenditures from investment activities such as:

AGRICULTURE HOLDINGS AIMED AT RECONSTRUCTION OF OLD VINEYARDS OR THEIR REPLACEMENT WITH APPROVED VARIETIES

> ESTABLISHING FACILITIES FOR POST HARVESTING ACTIVITIES FOR VEGETABLES

PROCUREMENT OF EQUIPMENT AND OF MODERN AND EFFICIENT **IRRIGATION** SYSTEMS

PROCESSING FACILITIES INTENDED FOR EQUIPMENT FOR **IMPROVING** AND MONITORING

ESTABLISHING NEW PURCHASE-DISTRIBUTION FACILITIES FOR **FRUITS AND VEGETABLES** OR FOR COLLECTION RAW MILK OR MODERNIZATION OF EXISTING FACILITIES

> EQUIPMENT TO ACHIEVE THE **STANDARDS** FOR PROTECTION OF THE ENVIRONMENT DURING MEAT PROCESSING

**RENEWAL OF GREENHOUSES** AND PLASTIC TUNNELS **OR BUILDING NEW GREENHOUSES** TO **REPLACE** THE PLASTIC TUNNELS

PROCUREMENT OF TERMINAL AGRICULTURE MACHINERY AND EQUIPMENT INCLUDING EQUIPMENT AND INSTALLATIONS FOR HAIL PROTECTION

**RECONSTRUCTION OF FARMS** FOR PRODUCTION OF DAIRY COWS SHEEP AND GOATS, PIGS AND POULTRY INCLUDING ESTABLISHING OF NEW FACILITIES FOR POULTRY BREEDING

EQUIPMENT FOR MODERNIZATION **OF PRODUCTION LINES** THE QUALITY OF WINE FOR FRUIT AND VEGETABLE OR MILK PROCESSING AND THE INTRODUCTION OF NEW **INNOVATIVE PRACTICES** FOR PROCESSING

> RECONSTRUCTION OF SLAUGHTER FACILITIES IN ORDER TO REACH THE EU STANDARDS FOR FOOD SAFETY

**PROCESSING FACILITIES** INTENDED FOR EQUIPMENT FOR IMPROVING AND MONITORING THE QUALITY OF WINE

The agricultural holdings may also use support for establishing micro-processing facilities for processing of raw materials from own production. In addition, the agriculture holdings can obtain a higher rate of co-financing of the investment made, such as 55% for support of young farmers from 18 to 40 years old, 60% for agricultural holdings in mountainous regions, and 65% for young farmers in mountainous regions.



Invest Macedonia, the official Government agency responsible for attracting and developing foreign investments is a full service agency prepared to guide you throughout the decision-making process.

As an institution dedicated to making this process as beneficial and effortless as possible, we are eager to lead you through the initial inquiry phase, arrange a suitable itinerary to visit Macedonia, and culminate with an objective evaluation of the potential success of your project in Macedonia in comparison to neighboring countries, based on the current business climate. If your business requires finding suitable local partners, we will aid you through the process and ensure that an open exploratory dialogue can take place.

Meeting your business requirements is our primary goal. Our Aftercare program will provide assistance by mediating on your behalf with local authorities and the Government, supporting your expansion or reinvestment needs, aiding in obtaining required permits, and be at your disposal at all times to ensure the continued success of your business venture in Macedonia. Invest Macedonia understands the ever changing business needs as an operation grows, and to that effect, we pledge to collaborate closely with you to facilitate that growth in Macedonia.

#### INTERNATIONAL OFFICES:

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