



AgriTech Solutions: Innovating VET for Sustainable Agriculture
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2024-1-RS01-KA210-VET-000244168

FIELD VISITS

Organic farming

Experts/organizations: ZZ "STUBA", TD DZP KLECHOVCE DOOEL, ADUT GVN, AG FUTURA Technologies, „KAV KOMERC AND AGRO KAV KOMERC", COMPANY „STOJCHEVI and WINERY ARBESKA", INDIVIDUAL FARMER MARJAN TANCHEV, LISA – KOM KAVADARCI, INDIVIDUAL FARMER STEFAN STOJCHEV, AGRIJA DOOEL, Individual farmers groups and individuals, IZ Branko Atanasov, Livestock farm

Engaged teachers: Stefanovski Saso, Milosheva Zaklina, Jovanova Kristina, Doncheva Milica, Nikolov Efremcho, Slavkovic Sonja

Location: Kumanovo, Sveti Nikole, Skopje, Strumica, Kavadarci, Valandovo, Veles

Short description

We started manufacturing the most basic dietary supplements in early 2000. We founded ADUT GVN as a family company based in a clean rural environment far from industrial facilities.

From a company that initially dealt only with the packaging of granular and powdered products, it gradually grew into a company that began to invest in its own production of spices, food acids, drying and dehydration of fruits, vegetables and spices, as well as its own plantations of organic

beans, cereals, parsley, oregano, various spicy peppers, chili and more. All this has also imposed the establishment of strong and long-term partnership relations with our suppliers and buyers. The result of such cooperation is the setting of the highest standards for our buyers and always implies a fair relationship, security in

product quality, availability of products from our offer on the market, as well as the constant introduction of novelties and new products from our brand.

Since 2016, the company has also become export-oriented, making our products available to buyers in neighboring Bulgaria, Albania, and Kosovo. With the opening of markets in our neighboring countries, the need to increase the quantities of raw materials arose, so the company's management decided in early 2016 to purchase its own land and plant its own plantations of spicy pepper, parsley and oregano, beans, scallions, and more.

Today, "Adut GVN" is a company that has 140 products in its product range that are produced according to the HACCP standard, has its own space of 600 m², its own vehicle fleet, as well as a developed distribution network throughout the entire territory of the Republic of Macedonia. Regardless of all the challenges the company encounters,



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The management continues to invest and will invest in research and development of its own products, which is actually our primary goal.

Mission

Our mission is expressed in our slogans "STRAIGHT FROM NATURE" and "GREEN VALLEY". Our goal is to provide our consumers with a wide selection of quality spices and organic products, which, in addition to being delicious, will also provide them with a healthier choice.

Vision

Research and development remain a key point in our operations. Our desire is, through our own plantations and the process of forming subcontractors, to become a recognizable brand in the cultivation of high-quality varieties of spices and vegetables, which, through the organic production with which we prefer to be produced, we will offer to buyers with refined tastes and those who enjoy cooking.

The focus of our business is on organic production of spice plants. To achieve this goal, the company is guided by the same principles that are important for organic production, but with a special focus on quality, aroma and natural purity of spice plants.

The right choice of location and soil preparation is key. The soil must not have been contaminated with pesticides for at least 2-3 years. Compost, natural fertilizers (manure, green manure) and bioactive substances are used to improve the structure.

Also, the choice of seed material is a very important point. Only certified organic seeds or plants from unsprayed, local, adapted varieties are used.

"Biological preparations" are used for effective protection against diseases and pests.

In terms of irrigation, precise drip irrigation methods are used, without chlorinated water. Furthermore, the application of practices for moisture conservation, such as mulching surfaces.

The collection/harvest is done by hand, carefully, at the right moment for maximum aroma. The drying is done in the shade or under controlled conditions, without the use of chemicals.

"Ecological packaging" is used to package the products. The products must be stored separately from non-organic ones to avoid contamination.

Marjan Tanchev, Individual registered farmer of organic greenhouses with greenhouses with peppers, village Balinci, Valandovo. Individual registered farmer of organic greenhouses with greenhouses with peppers, village Balinci, Valandovo. The greenhouse is located in a clean environment around it of 20 km, near Valandovo. The greenhouse is 700 m2 covered with plasticized nylon PVC, which according to Mr.





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Tanchev protects against UV radiation 8 and above. The greenhouse is also covered with an anti-hail net.

The production method itself is completely organic from seeds or using hybrid seeds without any chemistry from the F 1 generation, which are placed in a smaller plate of warm soil, at the end of February, March until transplanting in April, May when the soil temperature is above 15 degrees Celsius. Today, the plants are in a phase of vigorous growth of the pepper, which so far has small fruits, flowers and large fruits. Transplanting is in other larger plates with a base of pure peat as an organic substrate without synthetic treatments with insecticides or fungicides. After about 20 days, it is transplanted under greenhouses or in a permanent place. The distance of transplanting in a permanent place is 30 cm from root to root and 90 cm from row to row, in the greenhouse itself. The entire greenhouse

under the greenhouse is covered with a drip system using a submersible pump from its own 42 m well, with ecologically clean water. In this phase, the plants are growing rapidly, as I said above, with formed flowers, small fruits and large, large fruits on the piers. The air temperature inside the greenhouse during the day ranges from 35 to 40 degrees Celsius, and during the night it is 18 - 20 degrees Celsius. Ventilation is fully controlled from all 4 sides, so that the hot air in this way of ventilation freely, which is mounted at the top of the greenhouse, cools down. The entire process of producing this organic product of pepper from the Caprima variety, which is a variety of pepper intended for ajvar, is also controlled. During the vegetation period, feeding is done with nettle and composted organic fertilizer. So far, only biological protection with natural extracts of garlic, nettle,

wormwood.

I also have other areas of my own outdoors, I grow modern eggplant with 6200 m², watermelon with 5800 m², and viticulture with 12000 m² of land. All my areas are irrigated with clean well water with an installed drip irrigation system.

drop.

Conclusion

Organic production of spice plants is a sustainable and environmentally friendly way of growing that allows for the production of quality, healthy and natural products with high aromaticity and nutritional value. By applying natural methods of fertilization and protection, soil fertility is preserved, pollution is reduced and biodiversity is encouraged. This production offers opportunities for the placement of organically certified products on the local and international market,



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whereby small farms can achieve added value and higher incomes. Organic spice cultivation is not only an economic opportunity, but also a contribution to a healthier environment and sustainable agriculture.

An individual farmer starts the idea of organic strawberry farming, by making a decision to produce their own strawberries for their own safety, with no use of chemicals, i.e. no traces of pesticides. The transition from conventional to organic production was not easy, but today this individual farmer has succeeded in his decision and today produces organic strawberries for his family and for the market. This production is carried out entirely according to the principles of organic production.

The increasing use of herbicides, pesticides and other chemical preparations, and even mineral and artificial fertilizers, leads people to decide on organic plant cultivation, in order to protect their own health. Organic production faces a series of problems that burden production. One of the problems for the spread of organic production is the insufficient education of buyers, but also of farmers about the benefits of organic production. Also in the context of climate change and the increasing demand for healthy food, organic agriculture is a sustainable alternative that requires a strategic approach.

The very method of organic production of peppers under greenhouses is a laborious work in which my entire family is involved, my wife and my nine daughters Ivana and Gjorche Petrov Kristina, who are students at the Veterinary University of Agriculture, Agricultural Technician School of the from Kavadarci, on the agricultural and Phytomedicine. They also carry out their summer internship with me and learning through work is a real

challenge, to gain a lot of knowledge and practical skills for the plastic industry production of organic pepper. Let's conclude!

Frequent use of organic products will make us all healthier. This is especially important for babies, children and people with impaired immune systems. Increased use of organic products has a positive effect on the environment.

environment.

