



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

REPORT

From the implementation of an activity for the needs of the project

Review of existing qualifications

Overview of the prevalence of sustainable agricultural practices, precision agriculture, organic farming, renewable energy sources and the use of technology in agriculture in the qualification curricula.

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Place Skopje

Qualification Agricultural technician

Short description

This qualification provides the student with the knowledge, skills and competencies to

- controlling operations for the application of basic techniques in agricultural, horticultural, floricultural, viticultural and fruit production
- proper preparation of agricultural machinery and materials for planting production
- applying systems for processing areas for the production of agricultural crops
- applying methods and techniques of sowing, planting and transplanting - applying measures for the care of agricultural crops
- timely and proper harvesting of agricultural crops - application of the principles of organic agricultural production and the possibilities for transitioning from conventional to organic agricultural production
- organizing work in livestock production
- implementation of prescribed work technologies, control of zoohygienic and microclimatic conditions in animal housing facilities
- controlling the health and welfare conditions of animals
- taking care of the procurement, storage and consumption of animal feed - controlling the prescribed measures for the nutrition of all types and categories of animals
- controlling milk yield, growth and carrying capacity - monitoring all changes in animals during production



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- controlling the conditions for safe storage and keeping of livestock products
- planning the number of workers, keeping records of workers' work and controlling the quality and quantity of the work performed
- participating in the preparation of a work plan, taking samples for analysis from livestock products and animal feed
- taking appropriate agrotechnical measures in accordance with the results of the analysis - keeping records of the achievement of work norms, the results of the workers and the machines
- keeping records of animals
- keeping records of animal production and applying the principles of organic farming livestock production
- controlling operations for applying basic techniques when working with agricultural machinery
- controlling the correct preparation and inspection of powered, self-propelled and attached machines for work
- operating various types of tractors and combines - controlling work operations with agricultural machinery
- application of standards and rules in agricultural transport
- correct production records and proper use of machines, equipment and tools at the workplace
- protection of health and the environment.

Based on a review of the curricula of vocational subjects, it can be concluded that the technologies of sustainable agricultural practices, precision agriculture, organic agriculture, renewable energy sources and the use of modern technologies in agriculture are represented to a certain extent. This qualification has been prepared according to the conditions at the time of its preparation in 2019. At this time, most of the specific areas of interest of the project have not yet reached the current technological development.

Proposal for improving the existing qualification in terms of the representation of sustainable agricultural practices, precision agriculture, organic agriculture, renewable energy sources and the use of technology in agriculture in the curricula of the qualification

Proposals for improving the existing qualification in terms of the representation of sustainable agricultural practices, precision agriculture, organic agriculture, renewable energy sources and the use of technology in agriculture in the curricula of the qualification are:

- To provide practical examples of the use of the instruments in agriculture



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- To also review aeroponics as a new production technology
- To develop more types of organic fertilizers and their use in organic production
- To provide practical programs and examples for integrated protection in agriculture
- All areas should be processed through all modular units, because agricultural mechanization is part of all production technologies in agriculture
- To provide practical programs for the use of new technology in the production of flower species
- To provide practical programs for the application of agrotechnical and other measures in flower production
- In this modular unit Agroecology, all can be represented cross-curricular areas, especially the use of technology in agriculture, precision agriculture, and sustainable agricultural practices
- In this modular unit Agrotechnics, more/all 5 areas can be represented, with special emphasis on the application of each of the areas
- In this modular unit Production of grape planting material, all 5 areas can be represented, especially the use of technology in agriculture, precision agriculture and sustainable agricultural practices
- In this modular unit Agrobiological traits and agrotechnics of grapevines, all 5 areas can be represented, with special emphasis on the application of each of the areas.
- In this modular unit Conditions for growing and raising fruit trees orchards and fruit tree cultivation systems and crown formation can represent all 5 areas, especially the use of technology in agriculture, precision agriculture and sustainable agricultural practices
- In this modular unit, fruit growing, harvesting, storage, packaging and transportation of fruit can represent all 5 areas, with special emphasis on the application of each area
- In this modular unit Methods of raising domestic animals and other zootechnical measures, more than all 5 areas can be represented
- To provide practical experiences in applying the principles and measures for organic farming livestock production
- In this modular unit Agrotechnical measures can be represented all 5 areas
- To provide practical experiences in applying the procedures for processing agricultural products
- To provide practical experiences in applying conservation procedures the food





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- In this modular unit Measures in Organic Plant Production, in addition to measures in organic production, emphasis should also be placed on sustainable agricultural practices, renewable energy sources and the use of technology in agriculture.
- In this modular unit Technologies in Organic Plant Production
In addition to technologies in organic production, emphasis should also be placed on sustainable agricultural practices, renewable energy sources and the use of technology in agriculture.
- To provide practical experiences in applying procedures for raising flowers surfaces
- To provide practical examples of the application of new technological solutions for beekeeping equipment
- To provide practical examples of the application of sustainable and new technologies in organic beekeeping
- To provide practical examples of the application of new technologies in cultivation and tobacco manipulation
- To provide practical examples of the application of new technologies in production of red, rose and white wines
- To provide practical examples of the application of new technologies in maturation and wine repair
- To provide practical programs for the use of new technology in production of flowers for exterior use
- To provide practical programs for the use of new technology in interior design production
- In this modular unit Vegetable Production Technologies, more/all 5 areas can be represented, with special emphasis on the application of each of the areas
- In this modular unit Wine grape varieties can be represented more all 5 areas, with special emphasis on the application of each of the areas
- In this modular unit Table Grape Varieties and Directly Inbred Hybrids, all 5 areas can be represented, with special emphasis on the application of each of the areas.
- In this modular unit, all 5 areas can be represented more, with special emphasis on the application of each of the areas.
- In this modular unit Strawberry, Southern and Subtropical Fruits, all 5 areas can be represented more, with special emphasis on the application of each of the areas





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- In this modular unit Fruit Processing can be given a separate
emphasis on the application of new technological solutions
- In this modular unit Technologies of production of grains and
Tuberous crops can be represented in more/all 5 areas, with special emphasis on the application of each area
- In this modular unit Industrial Production Technologies
cultures can represent more/all 5 areas, with special emphasis on the application of each area
- In this modular unit Technologies of forage crop production
more/all 5 areas may be represented, with particular emphasis on the application of each area
- In this modular unit Horsemanship, more/all 5 areas may be represented, with special emphasis on the application
of each of the areas
- In this modular unit Cattle Breeding, more/all 5 areas can be represented, with special emphasis on the application
of each of the areas
- In this modular unit Sheep and goat farming can be represented
more/all 5 areas, with special emphasis on the application of each area
- In this modular unit, Cunicularism can be represented
more/all 5 areas, with special emphasis on the application of each area
- In this modular unit Pig Farming, more/all 5 areas can be represented, with special emphasis on the application
of each of the areas
- In this modular unit Poultry Production, more/all 5 areas can be represented, with special emphasis on the
application of each of the areas
- In this modular unit Fisheries, more/all 5 areas can be represented, with special emphasis on the application of
each of the areas
- In this modular unit Beekeeping, more/all 5 areas may be represented, with special emphasis on the application of
each of the areas
- To provide practical experiences in applying measures and techniques from integrated protection for efficient pest
control in crop vegetation
- To provide practical experiences in applying measures to control chemical hazards in food, thus ensuring the
production of safe food.
- To provide practical experiences in applying hygiene and sanitary measures and
principles in food production
- In this modular unit Organic Livestock Production, in addition to measures in organic production, emphasis should
also be placed on sustainable agricultural practices, renewable energy sources and the use of
technology in agriculture.





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- In this modular unit Organic Aquaculture, except for the measures in Organic production should also emphasize sustainable agricultural practices, renewable energy sources, and the use of technology in agriculture.
- In this modular unit Organic Beekeeping, in addition to the measures in Organic production should also emphasize sustainable agricultural practices, renewable energy sources, and the use of technology in agriculture.
- To provide practical experiences in applying external procedures arranging
- To provide practical examples of the application of sustainable and new technologies in fisheries
- To provide practical examples of the application of new technological solutions in seasonal and off-season fermentation of oriental types of tobacco
- To provide practical examples of the application of new technological solutions in tobacco preparation in cigarette manufacturing
- To provide practical examples of the application of new technological solutions in Production, packaging and quality improvement of filter cigarettes and other tobacco products
- To provide practical examples of the application of new technologies in production of grape, fruit and forest fruit brandies
- To provide practical examples of the application of new technologies in production of special herbal brandies
- To provide practical examples of the application of new technologies in the production of grain brandies, alcoholic beverages from other agricultural raw materials and liqueurs

In Skopje

Teachers

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