



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

REPORT

For the implementation of activities for the needs of the project

Overview of existing qualifications

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

Teacher: Jovo Katto

Place: Sombor

Qualification: Agricultural Technician for Digital Technologies

Short description

The teaching and learning plan was developed in 2024 based on the qualification standard.

The Agricultural Technician for Digital Technologies prepares and monitors the operation of modern agricultural machinery and digital technologies in crop and livestock production, as well as the exploitation of agricultural machinery and the application of digital technologies in the production process, respecting the regulations in the field of agricultural production and food safety, as well as occupational health and safety measures.

He is trained for:

checking the correctness and control of the operation of machines, devices and equipment on the plot, in production facilities and warehouses for agricultural products and agricultural machinery; participation in introducing digital tools and information platforms in the processes of crop and livestock production;
using devices and systems for irrigation and drainage of water, including the application of digital technologies;

monitoring the operation of agricultural machinery, equipment, as well as digital tools and devices in crop and livestock production, and harmonizing the operation of



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the technique according to the conditions of the plot and the building;

using specialized digital platforms and applications for planning agricultural work;

using navigation devices – Global Navigation Satellite System (GNSS), when performing agrotechnical operations;

use of technologies for yield monitoring, monitoring the condition of crops, as well as collecting data from sensors for near and remote detection of plant and soil properties (satellites, drones, weather stations and sensors);

application of agrotechnical measures according to the technological principles of precision agriculture (spatially variable soil cultivation, sowing/planting, fertilization, plant protection, dosing of nutrients in the irrigation process), in accordance with the recommendations of an agricultural engineer.

Competencies

Monitoring and operational organization of the work of modern agricultural machinery and digital technologies in crop and livestock production;

Exploitation of agricultural machinery and application of digital technologies in the production process;

Application of regulations and quality standards in crop and livestock production production;

Keeping records and using data from specialized information systems in all phases of crop and livestock production. Based on the review of

The vocational programs 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. Corrections to the program are needed.

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 within the qualification.

It is necessary to improve the existing qualification in the following subjects:

Digital technologies in agriculture

To increase the prevalence of sustainable agricultural practices and the use of technology in agriculture.

Basics of plant production

To increase the prevalence of sustainable agricultural practices and precision agriculture.

Agriculture and gardening

To increase the prevalence of sustainable agricultural practices, precision agriculture and renewable energy sources in agriculture.



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Fruit growing and viticulture

To increase the prevalence of sustainable agricultural practices, precision agriculture and renewable energy sources in fruit growing.

Livestock farming

To increase the prevalence of precision agriculture and renewable energy sources in livestock farming.

Automation of agricultural machinery

To increase the prevalence of sustainable agricultural practices and renewable energy sources.

Precision farming

To increase the prevalence of sustainable agricultural practices and renewable energy sources.

Operation and maintenance of agricultural machinery

To increase the prevalence of sustainable agricultural practices and renewable energy sources.

Professional practice

To increase the prevalence of sustainable agricultural practices and precision agriculture.

Organic production in gardening – elective subject

Organic production should be more represented in the mandatory vocational subjects of crop and livestock production as a separate module.

Renewable energy sources in agriculture – elective course

Energy production from biofuels should be more widely represented in the mandatory vocational subjects of crop and livestock production as a separate module.

Agrosolar should be a mandatory module or subject due to the adaptation of agricultural production to climate change in the context of agrosolar. This would unite green energy production and agricultural production.

Artificial intelligence

It should be more represented in the mandatory vocational subjects of plant and livestock production as a way of learning.

Robotics

1. It should be a mandatory module within the agricultural technology subject.

In Sombor

Teacher

Date 13.07, 2025. year

Jovo Cato



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