

Template for Regionally-based Occupational Standard

Full format of a standard with proposed groups of tasks/functions

Occupational standard: Agriculture technician of traditional and organic cultivation occupational standard

Occupation: Agriculture technician of traditional and organic cultivation

Sector: Agriculture (specific to national coding)

ISCO Level: III

Description of occupation:

Agriculture technician of traditional and organic cultivation (ATTOC) organizes and performs works in crop and livestock production (within agricultural holdings, farms, cooperatives, institutes, research centres and other economic entities) while complying with standards and norms of **traditional, organic, conventional and integrated farming**.

He/she is engaged in crop, vegetable and fruit farming, wine growing, cultivation of medical plants, herbs and spices, floriculture, mushroom farming as well as livestock production.

He/she organizes the production and/or implements procedures of basic processing, finishing, packing and storing produce of plant and animal origin in socially and environmentally sustainable manner. He/she participates in the product supply and marketing.

He/she applies prophylactic and zoo-hygienic measures in breeding animals.

He/she keeps record books and records of production traits of animals.

He/she is also able to produce simple plant-based and animal-based products (jam, rakija, dairy products, compotes, canned fruits and vegetables, etc.).

He/she communicates with colleagues, subordinates, superiors and clients ethically and professionally in accordance with principles of equality in terms of gender, ethnicity, nationality, culture, religion, etc.

He/she applies the legal basis that refers to professional agricultural activities, performs administrative and commercial duties, possess entrepreneurial skills, implements the rules related to safety at work and environmental protection and meets the standards for quality assurance of products and services performed, as well as prepares and completes relevant documentation.

He/she applies and ensures the compliance with quality standards in the course of work. He/she follows trends, achievements, new technologies (including ICT) and applies them in work and production processes with continuing professional development.



Working Environment and Working Conditions:

Agriculture technician of traditional and organic cultivation (ATTOC) works both outdoors and indoors. Outdoors he/she works in open-air under the potential influence of various elements (extreme temperatures, wind, UV radiation, humidity, precipitation), and may also work indoors, under the potential effect of specific microclimatic conditions (temperature, humidity, potential presence of harmful gases, etc.).

He/she works on private, state, or public agricultural properties in operations related to production, on-farm processing and trade of plant and animal products. He/she runs small units of agricultural enterprises or farms.

He/she can also work in facilities intended for the sale of agricultural products, in laboratories for testing soil, seeding/propagating material, diseases of field/vegetable crops based on plant material, as well as in agricultural pharmacies and nurseries, garden centres.

During the period of seasonal work, he/she can work every day or can have working hours longer than the standard ones. Working hours are adapted to the production conditions/type of work, which often includes working at night, on weekends and holidays, working in shifts and extended hours of work. Working hours can be adjusted to the stages of life (for example, parenthood) and the age of the person (younger and older).

He/she performs work tasks while maintaining different body positions, which requires standing, sitting, squatting, stooping, climbing and carrying weight. In the course of breeding of livestock, he/she is exposed to a risk of injuries and variable ambient conditions.

He/she performs potentially physically demanding, potentially dangerous work, due to exposure to machines and equipment, chemical agents, injuries caused by livestock. Therefore, he/she is obliged to wear personal protection equipment while performing work tasks.

The work of an agricultural technician can be adapted to the physical capabilities of men and women, and the life stages in which they find themselves. Pregnant women, as well as mothers, temporarily and permanently disabled can (temporarily) perform tasks that are easier and in a way that allows them to comply with parental responsibilities and are adjusted to their physical abilities. In a similar way, older people can perform less physically demanding tasks.

Agriculture technician may work independently, coordinate a group of workers and/or work under the supervision of a superior. He/she needs to be of adequate psychophysical health, to feel affection towards the nature, plants and animals, to care for their well-being, to have a sense of precision and creativity in work.

Relationship with other professions:

Agriculture technician of traditional and organic cultivation (ATTOC) is closely related to the occupations of (they have common - generic professional competences): fruit farmer-wine grower, crop-vegetable farmer, livestock producer, floriculturist-nurseryman, milk processor, agricultural producer, assistant agricultural producer, beekeeper, poultry technician, livestock technician, agronomy technician.

The occupation of ATTOC is also related to the following occupations: horticulture technician, food technician, veterinary technician, phytopharmaceutical technician, butcher, baker, miller as well as other occupations related to the managing positions, engineers (in the field of agriculture and others) etc.



Occupational standard:

GROUP OF TASKS/FUNCTIONS	KEY TASKS	ACTIVITIES
<p>1. Analysis, planning and organization of work</p>	<p>1.1. Analysis of work/working tasks</p>	<p>1.1.1. Examines/analyses legislation, standards (referring to traditional, organic, conventional and integrated farming production) and documentation required for the implementation of work tasks (projects, studies, work order ...)</p> <p>1.1.2. Analyses data of traditional, organic, conventional and integrated agricultural production as per market demands (conditions).</p> <p>1.1.3. Reviews the work task (order) in order to plan activities and resources necessary for the work task completion (work task operatives (structure and number), materials, tools, equipment and devices)</p> <p>1.1.4. Analyses the work task (order) in order to specify documentation required for its implementation (work order, calculation of required materials services, machines, equipment and labour, records, etc.)</p> <p>1.1.5. Foresees the duration of works/activities in phases, all in accordance with requirements of the work task and in agreement with superiors</p>
	<p>1.2. Planning and organization of own work and work of the group</p>	<p>1.2.1. Plans periodical (daily, weekly, monthly, annually) activities based on applicable legislation indicators and results</p> <p>1.2.2. Plans required resources/prepares relevant time schedule (technical measures, tools, equipment, machinery, processed materials, raw materials, work tasks, labour/human resources...) taking into account the environmental sustainability and considering gender of employees.</p> <p>1.2.3. Prepares a plan of works in their entirety and in phases, all in accordance with the calendar of agricultural works, work tasks and, if necessary, in cooperation with superiors/engineers/licensed experts</p> <p>1.2.4. Implements changes in the agriculture production plan in a timely manner towards the improvement of the production</p> <p>1.2.5. Plans and organizes the necessary crop and livestock machinery, work, devices, equipment and tools</p> <p>1.2.6. Plans and organizes the necessary labour force, application of care measures for the purpose of plant production (traditional, organic, conventional and integrated), collection, storage and transport, conservation and processing of selected plant products</p> <p>1.2.7. Plans and organizes the necessary labour force, application the zootechnical measures in livestock (traditional, organic, conventional and integrated) products in terms of breeding, hygiene, protection of livestock, collection, transport and storage of products</p> <p>1.2.8. Plans the selling of agriculture products by economic interest</p> <p>1.2.9. Reports on work progress to hers/his supervisor.</p>

<p>2. Preparation of the Workplace</p>	<p>2.1. Preparation of resources and workplace for the execution of works</p>	<p>2.1.1. Administrates relevant documentation required to perform the work tasks (work order, material standards, reports, farm book, etc.).</p> <p>2.1.2. Prepares for work and prepares and uses means of protection and protective equipment required for the work task implementation, in accordance with applicable occupational safety legislation (protective footwear, clothing, masks, gloves, apron/coat, first aid equipment, etc.) and sustainability standards (high-grade equipment made of quality assured raw materials)</p> <p>2.1.3. Selects, prepares checks and uses the functionality of tools, equipment, protective equipment machines, devices for work and materials based the work order and working documentation/manuals.</p> <p>2.1.4. Determines the type of preliminary works to be completed prior to the implementation of work tasks</p> <p>2.1.5. Checks working conditions at the workplace in accordance with general occupational health and safety measures (lighting, chemical conditions, sources of physical hazard, climate conditions – temperature, wind, rainfall, fog, snow, etc.)</p> <p>2.1.6. Takes care of and maintains the work site and tools after each work process</p>
<p>3. Operational tasks</p>	<p>3.1. Establishing field crop and vegetable variety fields in the open field and protected areas</p>	<p>3.1.1. Performs soil sampling and sends soil samples for chemical soil analysis</p> <p>3.1.2. Implements crop rotation in the process of producing field crop and vegetables, providing pest control, retaining moisture, preventing erosion and reducing emissions</p> <p>3.1.3. Organises/performs primary tillage in accordance with relevant agro-climatic conditions and obtained results of soil fertility control using appropriate measures for primary and secondary tillage, while preserving microbiological environment</p> <p>3.1.4. Selects field crop and vegetable cultures and varieties to be planted depending on the cultivation method, the main product, use on the farm and intended purpose</p> <p>3.1.5. Performs the control of seeds and classification of seedlings in accordance with relevant environmental standards</p> <p>3.1.6. Supervises other operatives while executing relevant works for the purpose of establishing arable and vegetable crop fields</p>
	<p>3.2. Production of seedlings and growing vegetable varieties in protected areas</p>	<p>3.2.1. Organises/executes works on establishing a protected area for growing plants, in accordance with the cultivation technology</p> <p>3.2.2. Organises/executes sowing, planting and cultivation in different ways applying principles of production technology</p> <p>3.2.3. Monitors the development of young plants and implements phytosanitary measures, care and protection measures and plant treatment measures in the process of vegetable growing in a protected area, in cooperation with the engineer</p> <p>3.2.4. Supervises other operatives while executing relevant works in the process of seedling production and vegetable growing in a protected area</p>
	<p>3.3. Sowing planting and transplantation of field and vegetable crops in the open fields</p>	<p>3.3.1. Estimates the norm of seedling and seeds material required for sowing/number of seedlings required for planting depending on relevant biological, agro-technical, economic, and agro-ecological factors</p> <p>3.3.2. Prepares adequate machines, equipment, and tools in accordance with the selected method of seed sowing/seedling planting and with the environmental sustainability standards</p> <p>3.3.3. Organises/performs seed sowing, planting, and seedling transplantation in accordance with the requirements of production technology and ecological standards</p> <p>3.3.4. Coordinates and/or supervises a group of operatives during seed sowing/planting of field and vegetable crops</p>

<p>3.4. Implementation of agro-technical measures</p>	<p>3.4.1. Performs visual monitoring of plants to determine the need for taking appropriate measures 3.4.2. Implements agro-technical measures while meeting agro-technical deadlines (irrigation, fertilization, application of protective agents, thinning, shading, soil calcification) with the use of appropriate machines and tools, taking into account the environmental protection 3.4.3. Applies basic crop treatment in the crop production process 3.4.4. Supervises other operatives while applying agro-technical measures and crop treatment measures 3.4.5. Provides expert advice within their competences to agricultural producers in accordance with relevant standards of farming and environmental protection standards</p>
<p>3.5. Establishing perennials (agrumes, fruits, vineyards, olives etc. ,)</p>	<p>3.5.1. Performs soil sampling and sends soil samples for chemical soil analysis 3.5.2. Chooses the cultures and varieties of perennials for cultivation 3.5.3. Organises/performs the preparation of the terrain and field for the establishment of perennials, using the adequate/appropriate tools and machines. 3.5.4. Organises/performs basic, organic, and mineral fertilization of the soil in accordance with various agricultures 3.5.5. Organises/performs planning and preparing the area for establishing orchards (determining the size of the plot, road network, direction of rows, planting distances, marking the planting points, arrangement of varieties, windbreaks, irrigation systems, etc.) 3.5.6. Determines the time and method of planting in accordance with agro-ecological conditions and propagating material 3.5.7. Organises preparation/prepares the seedlings and plants them 3.5.8. Sets up seedling supports in the orchard and vineyard 3.5.9. Coordinates works of operatives during fruit and grape vine seedling planting</p>
<p>3.6. Perennials maintenance</p>	<p>3.6.1. Establishes the cultivating systems of perennials according to the type, variety and quality of seedlings 3.6.2. Organises/performs fruit tree and grape vine pruning 3.6.3. Organises implementation/implements agrotechnical, pomo-technical, and protection measures 3.6.4. Demonstrates the process of work to other operatives regarding the execution of pruning, agrotechnical, pomo-technical and protection measures in the process of perennials maintenance</p>
<p>3.7. Harvesting, sorting, packing and storing primary products in crop production</p>	<p>3.7.1. Determines the phase of ripeness and the time and manner of harvesting based on available assets 3.7.2. Selects adequate (sustainable/eco-friendly) packaging based on the type of product 3.7.3. Organises/performs fruit picking and crop harvesting, packing, transporting and storing of products based on their characteristics and their purpose 3.7.4. Monitors a group of operatives in the process of picking, harvesting, packing, transporting and storing respecting the abilities of employees (in relation to gender, age and physical capabilities). 3.7.5. Organises the deposition of/deposits products and monitors their conditions in warehouses</p>

3.8. Execution of preparatory works in the field of livestock farming	<p>3.8.1. Organises/performs the preparation and equipment of livestock (bovine animals, goats, sheep, horses, pigs, poultry, etc.) facilities in accordance with the environmental sustainability and protection regulations</p> <p>3.8.2. Identifies type of livestock depending on the location and type of farm.</p> <p>3.8.3. Conducts animal grouping into relevant spaces (boxes) based on sex, race, age and purpose</p> <p>3.8.4. Organises/performs the preparation of the field and terrain for grazing</p>
3.9. Livestock feeding	<p>3.9.1. Takes samples of animal food and sends them for laboratory analysis</p> <p>3.9.2. Organises the preparation of/prepares daily meals of fodder, follows up and feeds livestock in accordance with the cattle breed, category, health and physiological condition</p> <p>3.9.3. Performs visual inspection and evaluates organoleptic properties of food and water when performing the procedure of feeding livestock</p>
3.10. Livestock rearing	<p>3.10.1. Participates in the selection and insemination of livestock to be kept for breeding in a humane manner</p> <p>3.10.2. Monitors the health of livestock and takes appropriate actions in accordance with evaluation results</p> <p>3.10.3. Provides health protection in the process of livestock rearing</p> <p>3.10.4. Assists in the actions of the veterinary service conducted on the agricultural holding and farm, all in accordance with the order given by the competent veterinarian</p> <p>3.10.5. Implements zootechnical measures in facilities according to the order of agricultural engineers</p> <p>3.10.6. Enters relevant data into adequate registry e-book forms after the purchase and/or birth of the animal</p> <p>3.10.7. Performs marking of livestock on the farm (intended for reproduction, for fattening, etc.)</p> <p>3.10.8. Organises collection/collects animal products and provides adequate (eco-friendly) storage until dispatching thereof for processing or shipping (wool shearing, milking, egg collection) following the principles of conventional and organic farming and environmental protection and sustainability standards</p>
3.11. Livestock tending	<p>3.11.1. Organises tending/tends livestock using various equipment and animal care products (beak trimming in laying hens, hoof trimming, spraying against parasites, skin care and cleaning, udder hygiene, fleece of wool cleaning and shearing, etc.)</p> <p>3.11.2. Follows the calendar of prophylactic measures in accordance with the type and category of animals in line with the veterinary recommendations</p> <p>3.11.3. Performs and controls the implementation of zoohygienic measures (manure removal, cleaning, ventilation, disinfection, disinsection, deratization) in accordance with standards of livestock farming, environmental protection, sustainability standards and relevant legislation</p>
3.12. Processing primary products to obtain simple food products within an agricultural holding	<p>3.12.1. Organises preparation of/prepares raw materials, environmentally friendly equipment and tools for the production of simple food products from plants (juices, jams, dried fruits and vegetables, flour, brandy and other)</p> <p>3.12.2. Organises/performs fruit and vegetable thermal processing and canning in accordance with the environmental protection and sustainability standards and relevant regulations</p> <p>3.12.3. Organises/performs fruit and vegetable squeezing/basic processing to obtain juices</p> <p>3.12.4. Organises/implements necessary procedures to obtain dried fruits, vegetables, spices and herbs</p>

		<p>3.12.5.Organises/performs cereal milling to obtain flour and cereal groats in accordance with the environmental protection and sustainability standards and relevant regulations</p> <p>3.12.6.Organises/prepares raw materials, premises, equipment and tools for obtaining finished dairy products (sour-milk products, cheese, kaymak, and other) in accordance with the environmental protection and sustainability standards and relevant regulations</p> <p>3.12.7.Organises/implements relevant procedures to obtain finished dairy products</p> <p>3.12.8. Organises/performs packing and storage of finished products in adequately prepared environmentally friendly packaging, i.e., storage unit</p>
	<p>3.13. Using and maintaining machines, equipment, and tools for work in the field of agricultural production</p>	<p>3.13.1.Selects machines, equipment and tools required for basic and additional works based on the process of work</p> <p>3.13.2.Controls the condition and functionality of machines, equipment, tools and their aggregates</p> <p>3.13.3.Performs and supervises cleaning, disinfection and maintenance of agricultural machinery, equipment, tools and aggregates</p> <p>3.13.4.Performs and supervises simple repairs of agricultural machinery and equipment</p>
<p>4. Administrative tasks</p>	<p>4.1. Keeping work documentation</p>	<p>4.1.1. Keeps records of the working hours (personal and associates) in accordance with relevant legislation in electronic form</p> <p>4.1.2. Completes the daily, weekly work plan using the required templates</p> <p>4.1.3. Fills in relevant documentation, in accordance with the work task (daily weekly work plan and work order, register, protocol, file, electronic records, database, work log, material standards, entry and exit of goods, reports, farm book, etc.) in accordance with domestic legislation on personal data protection and GDPR regulations.</p> <p>4.1.4. Keeps registries on crop and livestock farming and records production trades and conditions of plants and animals</p> <p>4.1.5. Keeps records on consumption of processed materials, fuel, spare parts, tools and equipment (in written or electronic form)</p> <p>4.1.6. Keeps records of agrometeorological parameters</p> <p>4.1.7. Participates in the development of periodic work reports, reports on activities and reports of revenues and expenditures of the farm for traditional, organic, conventional and integrated production.</p> <p>4.1.8. Archives documentation in accordance with applicable legislation (in written or electronic form)</p>

5. Commercial tasks	5.1. Estimation and calculation of costs and procurement of materials and resources	<p>5.1.1. Collects information on prices and quality of material in the relevant market</p> <p>5.1.2. Estimates the cost of procurement and transport of materials, of protection and protective equipment, working equipment, tools, spare parts, based on the specification</p> <p>5.1.3. Calculates the funds spent for the implementation of agricultural production respecting tax laws</p> <p>5.1.4. Calculates the final price of the products offered respecting tax laws</p> <p>5.1.5. Manages the financial aspects of the small enterprise in the case of co-ownership/management</p> <p>5.1.6. Drafts a request for the procurement of materials, equipment, devices, spare parts and means of protection and protective equipment based on the specification and submits it to his/her superior for approval</p> <p>5.1.7. Receives and stores materials, equipment, devices, and spare parts</p> <p>5.1.8. Enters details on delivered material, equipment, devices, and spare parts into the database</p> <p>5.1.9. Compiles complaint records if the received material, equipment, devices and spare parts are not in compliance with the previously placed order</p>
	5.2. Promotional activities	<p>5.2.1. Collects information on the markets for the sale of agricultural products.</p> <p>5.2.2. Monitors market competition and competitors' plans.</p> <p>5.2.3. Prepares material and promotes offers/products (fairs, presentations, digital marketing ...)</p> <p>5.2.4. Organizes/participates in the promotion of products through print and electronic media and participation in fairs</p> <p>5.2.5. Organises/participates in the sales/sells products</p>
6. Communication and cooperation with others	6.1. Communication with superiors, associates, clients and relevant institutions	<p>6.1.1. Establishes and maintains internal (superiors, associates, and support staff) and external (buyers, relevant public, governmental and civil sector institutions) communication, in a professional and ethical manner, following the rules of business communication, in accordance with the principles of equity in terms of gender, ethical, sexual orientation, nationality, faith, culture, etc.</p> <p>6.1.2. Applies adequate communication techniques in accordance with the organizational structure, competences, types of works and work tasks</p> <p>6.1.3. Gives instructions to associates and working group for the implementation of a work task using clear and professional terminology</p> <p>6.1.4. Uses modern information and communication technologies and assistive technologies in communication</p> <p>6.1.5. Settles internal and external complaints and disputes with using appropriate conflict resolution techniques</p> <p>6.1.6. Reports to his/her superior on the completed work task using clear and professional terminology</p>
7. Quality assurance	7.1. Quality assurance and control in accordance with relevant standards, norms, and legislation	<p>7.1.1. Applies relevant laws, standards, norms, technical regulations and internal procedures in agricultural production</p> <p>7.1.2. Uses devices, tools and equipment, in accordance with the manufacturer's instructions</p> <p>7.1.3. Controls the basic quality of agricultural products offered based on established standards.</p> <p>7.1.4. Eliminates basic shortcomings in the production of plant and animal products and takes action to increase the quality of products.</p> <p>7.1.5. Implements basic control the quality of water dependant of source of water and destination of use</p> <p>7.1.6. Remedies possible basic defects to assure quality of products in accordance with the production types and methods</p> <p>7.1.7. Performs product sampling to meet product quality requirements and/or obtaining declarations or certificates</p>

		<p>7.1.8. Attends trainings on the application of standards, trends, new techniques and technologies and internal procedures in agricultural production</p> <p>7.1.9. Evaluates his/her own work and the work of his/her associates having in mind the specifics of the job and the characteristics of the employed person (by, life stage, physical capabilities, etc.).</p>
<p>8. Protection at workplace and Environment Protection</p>	<p>8.1. Implementing procedures and measures for occupational safety and health.</p>	<p>8.1.1. Applies regulations, measures and procedures governing occupational health and safety and fire protection, as well as relevant statutory and internal regulations for emergency management</p> <p>8.1.2. Identifies hazards in the course of work and reduces risks of injuries at work and occupational diseases</p> <p>8.1.3. Uses correctly and properly maintains equipment and personal protection equipment to protect health and safety at work.</p> <p>8.1.4. Uses hazardous and potentially hazardous chemicals in accordance with user instructions to preserve the occupational safety and health.</p> <p>8.1.5. Provides first aid in case of accident following the relevant procedures</p> <p>8.1.6. Identifies and informs associates on potential hazards (placing danger signs) in the working environment and when using chemical agents, equipment, tools, devices and machines (having in mind the risks for special groups (pregnant women, mothers, the elderly, people with health risks)</p> <p>8.1.7. Implements/controls the implementation of hygienic-sanitary-technical measures of occupational safety, before, during and after the execution of works and the use of chemical agents</p> <p>8.1.8. Identifies and reports on the malfunction of work tools and equipment to the person in charge</p> <p>8.1.9. Keeps the work site clean and orderly until the completion and takeover of the works</p>
	<p>8.2. Implementing procedures and measures for environmental protection</p>	<p>8.2.1. Implements environmental protection measures, rules and standards.</p> <p>8.2.2. Identifies and analyses factors that affect environmental pollution.</p> <p>8.2.3. Disposes, stores and sorts processed materials, chemical agents, animal and plant residues in a manner which does not jeopardize the environment</p> <p>8.2.4. Organises/ collects, selects, preserves, deposits and treats waste from the work process in accordance with environmental regulations.</p> <p>8.2.5. Controls the possible harmful effects that his/hers work (using hazardous or potentially hazardous chemicals, agriculture equipment, machines, and tools) may have on the environment Carries out plant and livestock production activities using energy and materials in accordance with the principles of sustainable development and environmental protection.</p>