

Approved:
CEO: /Ch. Marinov/
Date: 22.06.23

Outgoing Ref. No. 26.02.2024
(filled in by CARBONSAFE)

Individual strategy for management of used areas in the farm

Data of the operator:

Natural person ☐	Legal entity ☒
DATA OF THE NATURAL PERSON (filled in by Natural persons only)	
Name:	
BULSTAT:	
Telephone:	
e-mail:	
DATA OF THE LEGAL ENTITY (filled in by Legal entities only)	
Name:	VUKI OOD
UIC:	115536357
Telephone:	+359888384292
e-mail:	vukodinov@vukibg.com

Table 1:

No. in row	CROPS GROWN IN THE FARM	ID No. of the plot (by Restored Property Map/Cadastral Map/Agricultural Land Block/Farming Block)	Area ha	EXISTING SITUATION (Short description of the applied technology and types of tillage/treatment - visual agronomic assessment)			
				1 ☐	6 ☐	11 ☐	16 ☐
1	Peas		36,431	2 ☐	7 ☒	12 ☐	17 ☐
				3 ☐	8 ☐	13 ☐	18 ☐
				4 ☐	9 ☐	14 ☒	19 ☐
				5 ☐	10 ☐	15 ☐	20 ☐
2	Game field		102,549	1 ☐	6 ☐	11 ☐	16 ☐
				2 ☐	7 ☒	12 ☐	17 ☐
				3 ☐	8 ☐	13 ☐	18 ☐
				4 ☐	9 ☐	14 ☒	19 ☐
				5 ☐	10 ☐	15 ☐	20 ☐
3	Barley		20,9	1 ☐	6 ☐	11 ☐	16 ☐
				2 ☐	7 ☒	12 ☐	17 ☐
				3 ☐	8 ☐	13 ☐	18 ☐
				4 ☐	9 ☐	14 ☒	19 ☐
				5 ☐	10 ☐	15 ☐	20 ☐
4	Coriander		20,205	1 ☐	6 ☐	11 ☐	16 ☐
				2 ☐	7 ☒	12 ☐	17 ☐
				3 ☐	8 ☐	13 ☐	18 ☐
				4 ☐	9 ☐	14 ☒	19 ☐
				5 ☐	10 ☐	15 ☐	20 ☐
5	Oats		18,119	1 ☐	6 ☐	11 ☐	16 ☐
				2 ☐	7 ☒	12 ☐	17 ☐
				3 ☐	8 ☐	13 ☐	18 ☐
				4 ☐	9 ☐	14 ☒	19 ☐
				5 ☐	10 ☐	15 ☐	20 ☐

6	Spring peas		15,504	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐	6 ☐ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
7	Wheat		207,482	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐	6 ☐ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
8	Rapeseed		87,111	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐	6 ☐ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
9	Sunflower		208,907	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐	6 ☐ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
10	Maize		147,208	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐	6 ☐ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐

LEGEND	
☐ 1. Conservation tillage / no till; ☐ 2. Treatment of beds; ☐ 3. Minimal treatments; ☐ 4. Biological agriculture; ☐ 5. Integrated production; ☐ 6. Precision agriculture; ☐ 7. Diversification of crops; ☐ 8. Fertilization with microbial fertilizers; ☐ 9. Green fertilization (Sideration); ☐ 10. Cultivation of nitrogen-fixing crops; ☐ 11. Mulching treatment; ☐ 12. Use of organic/natural pesticides;	☐ 13. Stripes tillage; ☐ 14. Pasture and/or crop rotation and crop rotation management; ☐ 15. Grass weeding of the rows in perennial crops and vineyards; ☐ 16. Joint cultivation of more than one agricultural crop; ☐ 17. Implementation of agricultural belts; ☐ 18. Improvement measures in permanently grassed areas; ☐ 19. OTHER NOT LISTED HERE; ☐ 20. NONE OF THE ABOVE APPLIES**.

ADDITIONAL INFORMATION: (Please describe cultivation methods and practices, including tillage, currently being carried out on the cultivated areas and not listed above:)

.....

Table 2:

No. in row	CROPS GROWN IN THE FARM	ID No. of the plot (by Restored Property Map/Cadastral Map/Agricultural Land Block/Farming Block)	Area ha	INDIVIDUAL STRATEGY FOR MANAGEMENT OF THE USED AREAS IN THE FARM			
1	Peas		36,431	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☐	6 ☒ 7 ☒ 8 ☒ 9 ☐ 10 ☒	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐

2	Barley		20,9	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☒ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
3	Coriander		20,205	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
4	Oats		18,119	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☐ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
5	Spring peas		15,504	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☐ 9 ☐ 10 ☒	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
6	Wheat		207,482	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☒ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
7	Rapeseed		87,111	1 ☒ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☒ 7 ☒ 8 ☒ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
8	Sunflower		208,907	1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☐ 7 ☒ 8 ☒ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐
9	Maize		147,208	1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☒	6 ☐ 7 ☒ 8 ☒ 9 ☐ 10 ☐	11 ☐ 12 ☐ 13 ☐ 14 ☒ 15 ☐	16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐

LEGEND	
☐ 1. Conservation tillage / no till; ☐ 2. Treatment of beds; ☐ 3. Minimal treatments; ☐ 4. Biological agriculture; ☐ 5. Integrated production; ☐ 6. Precision agriculture; ☐ 7. Diversification of crops; ☐ 8. Fertilization with microbial fertilizers; ☐ 9. Green fertilization (Sideration); ☐ 10. Cultivation of nitrogen-fixing crops; ☐ 11. Mulching treatment; ☐ 12. Use of organic/natural pesticides;	☐ 13. Stripes tillage; ☐ 14. Pasture and/or crop rotation and crop rotation management; ☐ 15. Grass weeding of the rows in perennial crops and vineyards; ☐ 16. Joint cultivation of more than one agricultural crop; ☐ 17. Implementation of agricultural belts; ☐ 18. Improvement measures in permanently grassed areas; ☐ 19. Other not listed here; ☐ 20. None of the above applies**.

ADDITIONAL INFORMATION: (Please describe cultivation methods and practices, including tillage, to be carried out on cultivated areas not listed above:)

INDIVIDUAL RECOMMENDATIONS FOR THE FARM

A significant part of the farm's fields shows a deficiency of available phosphorus and low levels of organic matter. We recommend applying the specified amounts of phosphorus fertilizers (as indicated in the recommendations, in active substance) in fields with neutral or alkaline soil pH. For fields with pH < 6.5, pH correction can be considered. Suitable products include the soil amendments PN-98 and PP-76, to be applied once in quantities of 100–150 kg/da. These products are manufactured by Svilocell AD – Svishtov. The main limiting factor across all fields is phosphorus, and correcting the soil pH helps release a significant amount of this element already present in the soil.

LEGEND

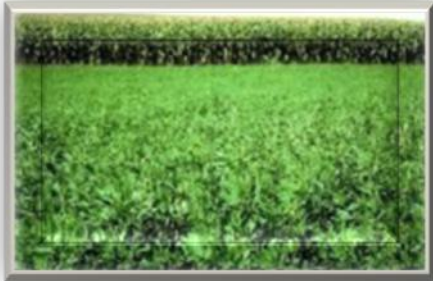
- | | |
|---|---|
| ☐ 1. Conservation tillage / no till;
☐ 2. Treatment of beds;
☐ 3. Minimal treatments;
☐ 4. Biological agriculture;
☐ 5. Integrated production;
☐ 6. Precision agriculture;
☐ 7. Diversification of crops;
☐ 8. Fertilization with microbial fertilizers;
☐ 9. Green fertilization (Sideration);
☐ 10. Cultivation of nitrogen-fixing crops;
☐ 11. Mulching treatment;
☐ 12. Use of organic/natural pesticides; | ☐ 13. Stripes tillage;
☐ 14. Pasture and/or crop rotation and crop rotation management;
☐ 15. Grass weeding of the rows in perennial crops and vineyards;
☐ 16. Joint cultivation of more than one agricultural crop;
☐ 17. Implementation of agricultural belts;
☐ 18. Improvement measures in permanently grassed areas;
☐ 19. Other not listed here;
☐ 20. None of the above applies**. |
|---|---|

No. from the legend	Designation	Notes
1	Conservation tillage /No-till: Conservation tillage is any cultivation or crop growing system that, after sowing, leaves at least 30% (or more) of crop residue on the soil surface after sowing to reduce water erosion. Any soil cultivation system that maintains at least 90-100 kg/ha of crop residue (stubble) during a critical wind-erosion period is considered to be conservation treatment. Effective conservation agriculture is based on three basic principles: - minimal mechanical disturbances of the soil (i.e., without tillage) by direct placement of seeds and / or fertilizer. - permanent soil organic cover, with at least 30% with crop residues and/or cover crops. - diversification of crops grown successively and/or in association. By reducing treatments, they can save between 30 and 40% of the labor time and petroleum fuels needed for mechanized activities compared to conventional farming. This would have a positive impact on the emissions of gases - pollutants of the atmosphere. Conservation agriculture also has the following advantages: - A sustainable agricultural system, (not only conservation), which improves the quality of natural resources, increases soil biodiversity, (flora and fauna, including wildlife) and at the same time does not confront the desire to	 Peas Barley Coriander Oats Spring peas Wheat Rapeseed

	obtain higher yields. • Uncultivated (unplugged) fields act as a landfill for carbon dioxide (CO₂) and applied globally, can be important in controlling atmospheric pollution in general, and in particular in influencing global warming. • Soils treated through conservation practices have better infiltration ratio and reduced surface runoff, which significantly reduces erosion. The practices for minimum mechanical disturbances of soils can be divided into two more general groups – with minimal treatments and without tillage (direct sowing). No tillage - Direct sowing in living roof vegetation or mulch. Direct sowing without plowing in the previously available roof vegetation – living or destroyed, e.g., mulch. Benefits: Reduced costs associated with pre-sowing treatments not carried out. Reduction of threats from wind- and water-caused soil erosion. Reduction of soil compaction and increased bioactivity. Reducing evaporation and excessive soil moisture loss, often critical for crop development. Less development of weeds in the long term, leading to less use of herbicides. Disadvantages: Difficulties for effective control of weeds, cover vegetation and mulch. Increased costs associated with mechanical weed control. Need for special machines, such as a seeder for direct sowing and other specialized machines.	
3	Minimal treatments: Opti-till or Minimum-till - They are characterized by minimal, partial, merged soil treatments, one, two or three in number depending on the type of soil and the specific climatic conditions. This is a technology in which deep soil treatments are replaced by the construction of a biological soil eco-system. In it, microorganisms, roots and other soil fauna take over the functions of processing and balancing nutrients. Minimal treatments preserve carbon in the soil, protect it from water and wind erosion, prevent compaction, improve soil fertility. Soil fertility (nutrients and water) is regulated by managing the soil cover from the previous crop, partial soil treatments and weed control.	 Peas Barley Coriander Oats Spring peas Wheat Rapeseed Sunflower Maize

5	Integrated production: Integrated production is a certified quality system for the production of crops that supports environmental protection through integrated pest management (IPM) and reducing the use of PPPs (plant protection products). Unlike organic farming, which excludes the use of PPPs or mineral fertilizers, in integrated production they can be applied, but under certain conditions. Integrated production makes use of advances in technology in the cultivation and protection of crops and combines different methods and means of pest management. Each farmer can apply integrated pest management by including a number of preventive measures to limit the spread of pests – such as crop rotation, use of appropriate agricultural machinery, balanced fertilization and watering, sanitary and hygienic measures, protection of beneficial organisms, resistant / tolerant plant varieties and standard/certified seeds and planting material, etc. Systematic monitoring of pests is carried out. When controlling them, preference is given to biological, physical, biotechnical and other non-chemical means, as well as to low-risk PPPs.	 Barley Coriander Oats Spring peas Wheat Rapeseed Sunflower Maize
6	DIRECTIONS: • Recommended soil treatments: vertical treatments to mix plant residues. • Inadmissible soil treatments: plowing and overturning of soil layers. GUIDELINES: • Summer period from 01 June to 31 October, the areas must be occupied with a minimum soil cover, plowing and overturning of soil layers is not allowed, except for a period within 14 days in which the soil can be processed according to the needs for the next crop, including sowing. • Winter period from November 1 to February 15, the areas must be occupied with a minimum soil cover, plowing and overturning of soil layers is not allowed, except for a period within 14 days in which the soil can be processed according to the needs for the next crop, including sowing. DUTIES: • Every single event, including soil treatments, is marked with the relevant deadlines in the technological map. Precision agriculture: Precision agriculture or farming is based on the use of a wide range of technologies that allow the collection of data from treatments, monitoring and analysis of crop development, as areas are adequately treated to increase efficiency. This management system is based on decision making, based on variable characteristics and obtaining maximum yields, according to the specifics of the site. The main benefits are associated with reduced use of water, fertilizers and pesticides, depending on specific data on conditions and a set of necessary agrotechnical measures. Precision agriculture should also be developed to support the development of precision technologies for sustainable agriculture in a clean and secure environment.	 Peas Barley Coriander Oats Spring peas Wheat Rapeseed

7	Diversification of crops: • Crop diversification - is the cultivation of several different crops on the farm in order to avoid monocultural production, which can lead to a decrease in soil fertility, increasing problems with protection from diseases, pests and weeds, which in turn is a prerequisite for greater levels of fertilizer input and plant protection products. On a farm with arable land between 10 ha and 30 ha (inclusive) the farmer must provide at least 2 different crops. The main crop should not cover more than 75% of the arable land. A holding with arable land above 30 ha should have at least 3 different crops. The main crop should not cover more than 75% of the arable land, and the two main crops should not be more than 95% of arable land. The diversification requirement shall not apply where: - More than 75 % of arable land is used for the production of grasses or other herbaceous forage, sown with legumes, set aside or combined with these uses and, if it is permanent grassland, for the production of grasses or other herbaceous forage or for the production of crops underwater. - Arable land on the farm is up to 10 ha.	 Peas Barley Coriander Oats Spring peas Wheat Rapeseed Sunflower Maize
8	DIRECTIONS: • Recommended soil treatments: vertical treatments to mix plant residues. • Inadmissible soil treatments: plowing and overturning of soil layers. GUIDELINES: • Summer period from 01 June to 31 October, the areas must be occupied with a minimum soil cover, plowing and overturning of soil layers is not allowed, except for a period within 14 days in which the soil can be processed according to the needs for the next crop, including sowing. • Winter period from November 1 to February 15, the areas must be occupied with a minimum soil cover, plowing and overturning of soil layers is not allowed, except for a period within 14 days in which the soil can be processed according to the needs for the next crop, including sowing. DUTIES: • Every single event, including soil treatments, is marked with the relevant deadlines in the technological map. Fertilization with microbial fertilizers: Microbials or so-called 'live fertilizers' means substances containing live micro-organisms which, when applied to seeds, plant surfaces or soil, colonies the rhizosphere or plant interior and promote growth by increasing the supply or availability of essential nutrients to the host plant. These fertilizers add	 Peas Barley Wheat Rapeseed Sunflower Maize

	nutrients through the natural processes of nitrogen fixation, dissolution of phosphorus and stimulation of plant growth by the synthesis of growth-promoting substances. It is expected that in the future, microbial fertilizers will significantly reduce the use of chemical fertilizers and pesticides. Benefits: Reduced use of mineral fertilizers. Improved accessibility of nutrients. Improvement of biological activity and soil fertility.	
10	Cultivation of nitrogen-fixing crops. Nitrogen-fixing crops: "capture" nitrogen from the air and transmit it to the soil. Nitrogen-fixing crops are Alfalfa (alfalfa) - Medicago sativa; Beans (common beans, field beans, non-climbing beans, low beans, peschar) - Phaseolus spp.; Beans (asparagus beans/ vigna) - Vigna spp.; Chickpeas - Cicer spp.; Clover - Trifolium spp.; Broad beans - Vicia faba; Lentils - Lens culinaris; Lupin - Lupinus spp.; Peas - Pisum spp.; Vetch - Vicia spp. (except Vicia faba); Esparzeta - Onobrychis spp.; Zvezdan - Lotus corniculatus L; Soybean - Glycine max. Burczak - Vicia Ervilia; Groundnuts — Arachis Hypogaea. Benefits: Soil moisture is conserved. They increase soil fertility naturally as a substitute for synthetic fertilizers. They protect the soil from erosion and suppress the development of weeds. They stimulate pollinating insects and biodiversity in agricultural areas. A source of additional feed supplement for animal husbandry.	 Peas Spring peas
14	Pasture and/or crop rotation and crop rotation management: Integration of different agricultural crops in agricultural areas, including cover crops. Crop rotation is a scientifically based alternation of crops in time and place on a certain area of a farm. Time rotation consists in changing crops in successive years on the same field. The rotation by place consists in the successive passage of each crop through all the fields. The rotation must meet the requirements of modern agronomic science, be rational, provide an economically advantageous crop structure for the farm, be in accordance with the ecological requirements of the crops and meet the terrain and relief conditions. Long-term cultivation of the same crop in one place causes a gradual decrease in soil fertility, an increase in the concentration of diseases and enemies. This can be avoided if crops are grown in crop rotation. In this way, biological factors are used most effectively to maintain and increase soil fertility. In order to ensure the rotation of crops in time and place, it is necessary to divide the total sowing rotation area into separate fields (most often 4-6). Plots of cultivated area that are occupied by one or several crops (when collective fields are formed) and that have approximately the same dimensions are called crop rotation fields. Benefits: Reduced use of pesticides and fertilizers through the inclusion of leguminous crops. Reduction of threats from wind and water erosion of the areas occupied by roof vegetation.	 Peas Barley Coriander Oats Spring peas Wheat Rapeseed Sunflower Maize

Date 26.02.2024

Agronomist: Hristo Nikolov