



## AGRICULTURAL UNIVERSITY - PLOVDIV

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### Research and Innovation Profile

General information	Description
<b>Title of the research entity/group</b>	Agroecological approaches for sustainable mechanized production of fruit and rootstocks
<b>Field of research expertise</b>  <i>/in conjunction with Horizon Europe Work Programme 2021-2022, Cluster 6 Food, Bioeconomy, Natural Resources, Agriculture and Environment’/</i>	<ul style="list-style-type: none"> <li>• Combined impact study (natural factors and high technologies) of key habitat management and direct interventions in biological agro-ecosystems, including in-situ study and analysis of agro-environmental factors for the distribution and growth of country-priority plants close to natural habitats.</li> <li>• Study of key agri-environmental factors for growth in the soil-plant-atmosphere system in typified organic farms.</li> <li>• Analysing and assessing the impact of agricultural practices on biodiversity and the functioning of ecosystems as a component of a sustainable and supportive living environment.</li> <li>• Comprehensive assessment of the ecosystem status of key types of agro-ecosystems and of the product, regulatory and support ecosystem services they provide.</li> <li>• Use of alternative soil composition improvers in order to obtain quality fruit growing material with low cost.</li> </ul>
<b>Research products and services provided by the research entity/group</b>	<ul style="list-style-type: none"> <li>• research results:               <ol style="list-style-type: none"> <li>1. Dobrevska G., R. Popova, H. Dzhugalov, 2015. <b>Manifestations of M9 apple rootstock in stoolbed with different soil substrate and plants with a different origin</b>, “10th International Symposium on Agriculture”, Zagreb, Croatia (16-20 February, 2015) Zbornik radova, 565-569.</li> <li>2. Dobrevska G., R. Popova, H. Dzhugalov, 2015. <b>Influence of plant origin and soil substrate on the behaviour of the MM 106 rootstock in stoolbet</b>. “10th International Symposium on Agriculture”, Zagreb, Croatia (16-20 February, 2015) Zbornik radova, 570-574.</li> <li>3. Popova R., E. Valcheva, G. Dobrevska, M. Dallev, D. Atanasov, 2016. <b>Influence of moisture-absorbing polymer (TERAWET) on some soil indicators in stoolbed of apple rootstocks</b>, Fourth National Conference of BDHV with international participation “Humus substances and their role in climate change mitigation ”, Sofia,</li> </ol> </li> </ul>

	<p>September 8-10, 183-190.</p> <p>4. Dobrevska G., M. Dallev, 2020. <b>Optimisation of agrotechnology in the production of apple rootstocks.</b> „Agriculture For Life, Life for Agriculture“, Scientific Papers, Series B, Horticulture Vol. LXIV, No. 1, p. 94-97.</p> <p>5. Dobrevska G., M. Dallev, 2020. <b>Changes in conventional agrotechnology in the grow of apple rootstocks.</b> „Agriculture For Life, Life for Agriculture“, Scientific Papers, Series B, Horticulture Vol. LXIV, No. 1, p. 90-93.</p> <p>6. Dobrevska G., M. Dallev, R. Popova, 2020. <b>Agrobiological assessment of application opportunities of natural humates and pyrolysis residue in the production of apple rootstocks.</b> „Agriculture For Life, Life for Agriculture“, Scientific Papers, Series B, Horticulture Vol. LXIV, No. 1, p. 85-89.</p> <p>7. Galya Dobrevska, Manol Dallev, Tatyana Bileva, Ekaterina Valcheva, 2020. <b>Management practices for conventional apple production in the plovdiv region.</b> Agricultural sciences, AU - Plovdiv (in press).</p> <p>8. Galya Dobrevska, Manol Dallev, Tatyana Bileva, Ekaterina Valcheva, 2020. <b>Management practices for bioproduction of apples in the plovdiv region.</b> Agricultural sciences, AU - Plovdiv (in press).</p> <ul style="list-style-type: none"> <li>● technological solutions: Developed technology for the use of alternative soil ingredients that help to improve its quality and reduce the cost of production of apple rootstocks.</li> <li>● Author,s certificates: Author's certificates: <ol style="list-style-type: none"> <li>1. Certificate IS № 027 / 17.02.2015 - Effect of small-structure pine chips on the soil and the quality of planting material of different origin in apple stoolbed.</li> <li>2. Certificate IS № 054 / 30.05.2017 - Application of moisture-absorbing polymer in apple stoolbed.</li> <li>3. Certificate IS № 072 / 05.10.2020 - Application of natural humates in the production of apple rootstocks.</li> <li>4. Certificate IS № 073 / 05.10.2020 - Application of pyrolysis residue from the production of apple rootstocks.</li> </ol> </li> </ul>
<p><b>Participation in previous/ ongoing national or/and EU projects (e.g. H2020, ERA, COST, etc.)</b></p>	<ul style="list-style-type: none"> <li>● National Scientific Program "Healthy Foods for a Strong Bioeconomy and Quality of Life"</li> </ul>

<b>Number of researchers involved /including young researchers e.g. doctoral, post-doctoral, habilitated, etc./</b>	<ul style="list-style-type: none"> <li>• 4</li> </ul>
<b>Research infrastructure used</b>	<p>Training and experimental base - village of Brestnik          Agroecological center - AU-Plovdiv          Laboratory of Soil Science          Specialized laboratory for fruit growing in the Center for practical training          Agricultural machinery</p>
<b>Profile of the leading researchers in the entity/group</b>	<ul style="list-style-type: none"> <li>• Assoc. Prof. - Galya Dobrevska, PhD (fruit-growing specialist);</li> <li>• Chief As. Prof. Eng. – Manol Dallev, PhD (agricultural mechanization specialist);</li> <li>• Assoc. Prof. – Rada Popova, PhD (soil specialist);</li> <li>• Assoc. Prof. - Dimo Atanasov, PhD (economy specialist);</li> <li>• Assoc. Prof. - Ekaterina Valcheva, PhD (ecology specialist).</li> </ul>
<b>In which calls of Horizon Europe Work Programme 2021-2022, Cluster 6 Food, Bioeconomy, Natural Resources, Agriculture and Environment’ the entity/group is ready to participate and how</b>	<p>The group is ready to participate and contribute to Horizon Europe calls:</p> <ul style="list-style-type: none"> <li>• HORIZON-CL6-SAG-2021-00-00: Optimization of nutrient budget in primary production</li> <li>• HORIZON-CL6-COO-2021-00-00: One health approach for Food Nutrition Security and Sustainable Agriculture (FNSSA)</li> <li>• HORIZON-CL6-EPS-2021-00-00: Environmental sustainability criteria for biological feedstock production and trade in bio-based systems: impacts and trade-offs</li> <li>• HORIZON-CL6-CLI-2021-00-00: Agroecological approaches for climate change mitigation, resilient agricultural production and enhanced biodiversity</li> <li>• HORIZON-CL6-COO-2021-00-00: International Research Consortium on (agricultural) soil carbon</li> </ul>
<b>Research entity/group contact person /name, postal address, e-mail, phone number/</b>	<p>Assoc. Prof. - Galya Dobrevska, PhD          e-mail: g_dobrevska@au-plovdiv          tel.: 00359 32 654 249          Chief As. Prof. Eng. – Manol Dallev, PhD          e-mail: manol_dallev@abv.bg          tel.: 00359 32 654 414; 00359889339813</p>