

Candidate supervisor's information summary form
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: Stanisław Samborski, dr hab.	
Academic discipline/disciplines	Agriculture and horticulture
Professional development (degrees and titles) in chronological order	<p>2016 – Habilitation/PostDoctoral Qualification, Department of Agronomy, Warsaw University of Life Sciences (WULS-SGGW), Poland</p> <p>2003 – Ph.D., Agronomy, Department of Agronomy, WULS-SGGW, Poland</p> <p>1998 – M. Sc., Eng. in Agronomy, WULS-SGGW, Poland.</p>
Most important publications/ patents in the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. Synoś M., Samborski S. 2026. Application of satellite navigation in the positioning of agricultural vehicles. Agronomy Science (accepted for print, in Polish, with English summary). 2. Samborski S.M., Stępień M., Şekerli Y.E. 2025. A case study of the temporal stability of soil electrical conductivity for a sandy field and the usefulness of its measurement for the preparation of agronomic category maps. Soil Science Annual, 76(3)208825. 3. Samborski S.M., Studnicki M., Stępień M., Wijata M., Rozbicki J. 2025. Do Genotypes, Weather, and Soil-Related Characteristics Affect the Critical N Dilution Curve of Spring Wheat? Journal of Soil Science and Plant Nutrition, Volume 25, p. 10120–10138. 4. Samborski S.M., Torres U., Bech A., Leszczyńska R., Bagavathiannan M.V. 2024. A Case Study on The Evaluation of Maturity Class in Potato Breeding Trials Using UAV Imagery. American Journal of Potato Research, Volume 101, p. 376–393 5. Stępień M.K., Gozdowski D., Samborski S.M. 2024. Możliwości przypisania zawartości frakcji granulometrycznych według PTG 2008/USDA do wybranych grup granulometrycznych PTG 1956 wyróżnionych na mapie glebowo-rolniczej. Soil Science Annual, 75(3), 193375 6. Stępień M., Gozdowski D., Samborski S. 2024. How Accurately Is Topsoil Texture Shown on Agricultural Soil Maps? A Case Study of Eleven Fields Located in Poland. Land, 13, 1852. 7. Ptaszyński M., Samborski S. 2023. Evaluation of the correctness of potato yield mapping. Fragmenta Agronomica, 40(1), 33–43. (In Polish, with English summary). 8. Ptaszyński M., Samborski S., Leszczyńska R. 2023. Evaluation of the relationship between normalized difference vegetation index and potato yield. Fragmenta Agronomica, 40(1), 44–49. (In Polish, with English summary).

<p>Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order</p>	<ul style="list-style-type: none"> ✓ Currently supervising a Ph.D. student – Renata Leszczyńska: „<i>Determination of the effect of soil properties on the spatial variability of canopy, yield, and quality of potato grown in various crop rotations using remote sensing</i>”. ✓ 15 December 2022 – Ph.D. defended by Elżbieta Bodecka on: “<i>Use of information on spatial field variability to determine efficiency of variable nitrogen application in winter wheat</i>”, ✓ 5 April 2019 – Ph.D. defended by Joanna Groszyk on: “<i>Estimation of the influence of sulfur fertilization on yield and grain quality and efficiency of nitrogen utilization by winter wheat cultivated on different soils</i>”.
<p>Achievements in the area of projects/grants (in the last 5 years)</p>	<p>2023–2024 – PRELUDIUM-21 – “Remote evaluation of vine maturity in potato breeding trials”. Finansowany przez Narodowe Centrum Nauki, nr 022/45/N/NZ9/03953, <u>a supervisor of a Ph.D. student – Renata Leszczyńska.</u></p> <p>2022 – “Enhancing Soil Health in U.S. Potato Production Systems”. USDA National Institute of Food and Agriculture through the Specialty Crops Research Initiative. <u>Scholar of the Fulbright Senior Award, founded by the Polish-American Fulbright Commission.</u></p> <p>2016–2018 – <u>Senior researcher</u>, Satellite-based service for variable rate nitrogen application in cereal production. European Space Agency, contract No. 4000118613/16/NL/EM.</p>
<p>Subject area of the research project for which the candidate student is being recruited</p>	<p>The use of:</p> <ul style="list-style-type: none"> ✓ satellite and drone imagery to apply a variable rate of agricultural inputs, ✓ yield data collected by harvesters for decision-making, ✓ the Internet of Things to evaluate the spatial variability of fields, ✓ new methods to integrate and process big data collected by precision agriculture tools.
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