Curriculum vitae (CV)

Personal information

First name, last name	**Oleksandr Hanzhenko**
Birth data	June 11, 1974
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Education

- 2003 –Institute of Sugar Beet (Kyiv, Ukraine), PhD of agricultural machinery
- 1996 –Podillya State Agrarian Technical Academy (Kamyanets-Podilsky, Ukraine), Mechanical Engineer

Current employment

- Head of Department of Technologies for Growing of Bioenergy Crops, Institute of Bioenergy Crops and Sugar Beet (Kyiv, Ukraine)

Previous employment

- Head of Department of Technologies for Growing of Bioenergy Crops, Institute of Bioenergy Crops and Sugar Beet (19/03/2014 – till now)
- Head of the Laboratory of Technology for Growing and Processing Sugar Crops, Institute of Bioenergy Crops and Sugar Beet (01/2012 - 010/2014)
- Head of the Sugar Beet Seed Production Mechanization Sector, Institute of Sugar Beet (06/2004 - 01/2012)
- Lecturer, National University of Life and Environmental Sciences of Ukraine (01/2007 - 06/2007)
- Senior researcher, Institute of Sugar Beet (01/2004 - 06/2004)
- Researcher, Institute of Sugar Beet (01/2001 - 01/2004)
- Junior researcher, Institute of Sugar Beet (01/2000 - 01/2001)
- Postgraduate student, Institute of Sugar Beet (01/1997 - 01/2000)

Research experience

Participation in research and projects:

- Project Manager of the National Research Program “Develop methodological basis and make a comparative assessment of the energy potential of different genotypes of sorghum and sugar elements of technology of cultivation as a raw material for biofuel production in different soil and climatic zones of Ukraine” (01/2016 – till now)
- Participation in the National Research Program “Develop methodological basis and make a comparative assessment of the energy potential of grain sorghum as feedstock for biofuel production” (01/2016 – till now)
- Participation in the National Research Program “Develop agroecological foundations of

mechanized technologies of high-performance perennial cereal crops (miscanthus, switchgrass) for the production of biofuels" (01/2016 – tili now)

- Project Manager (from Ukraine) of the HORIZON 2020 project „Sustainable exploitation of biomass for bioenergy from marginal lands (Grant Agreement № 691874 SEEMLA - GreenGain - H2020-LCE-2014-2015)" 2016-2018
- Participation in the National Research Program "Develop high-yield technology of growing of bioenergy crops as feedstock for biogas production" (01/2016-12/2018)
- Participation in the National Research Program "Carry out a comparative assessment of the energy potential of today's hybrids of beet sugar as a raw material for biofuel production in the area steppes of Ukraine" (01/2016-12/2018)
- Participation in the National Research Program "Develop the theoretical foundations of mechanized technologies of energy willow and poplar for the production of solid biofuels" (01/2016-12/2018)
- Participation in the National Research Program "Develop elements of technology cultivation energy willow "Salix Viminalis" for the production of solid biofuels" (01/2014-12/2015)
- Participation in the National Research Program "Develop bioadaptyvnu technology of fodder beets for biofuel production" (01/2011 – 12/2013)
- Participation in the National Research Program "Develop theoretical bases of the high-producing growing of sugar beets for bioethanol production" (01/2011 – 12/2013)
- Participation in the National Research Program "Develop theoretical bases of zonal placing and adaptive technologies of growing of new species of phytoenergetic cultures" (01/2011 – 12/2015)
- Project Manager of the National Research Program "Develop theoretical bases of ecology favorable high-producing growing of sweet sorghum as raw material for biofuel production" Institute of Bioenergy Crops and Sugar Beet (01/2011 – 12/2015)

Scientific publications:

1. Abstracts of the conference "Catalog of Bioenergetic Plants" 9th EGU General Assembly, EGU2017, proceedings from the conference held 23-28 April, 2017 in Vienna, Austria, 7904
2. Revealing Bioenergy Potentials: Mapping Marginal Lands in Europe - The Seemla Approach / Galatsidas, S., Gounaris, N., Vlachaki, D., Dimitriadis, E., Kiourtsis, F., Keramitzis, D., Gerwin, W., Repmann, F., Rettenmaier, N., Reinhardt, G., Ivanina, V., Hanzhenko, O., Gnap, I., Bogatov, K., Barbera, F., Mattioli, D., Volkmann, C., Baumgarten, W. // 26th European Biomass Conference and Exhibition / DOI: 10.5071/26thEUBCE2018-1AO.4.1
3. Hanzhenko, O.M., Kvak, V.M., Fedorin, G.O. (2017). Effect of mineral fertilizers on the yield of biomass of miscanthus in the Carpathian region. *Sb. naukovi statti "Alternatyvni ta vidnovliuvani dzherela enerhii yak alternatyva pervynnym dzherelam enerhii v rehioni"* [Sb. sciences articles "Alternative and Renewable Energy Sources as Alternative to Primary Energy Sources in the Region"], 113-116. [in Ukraine]

4. Ivanina, V. & Hanzhenko, O. (2016a). Report of general understanding of MagL (D2.1) In: SEEMLA project reports, supported by the EU's Horizon 2020 programme under GA No. 691874
5. Hanzhenko, O., Roik, M. & Ivanina, V. (2016). Catalogue for bioenergy crops and their suitability in the categories of MagLs (D2.2) In: SEEMLA project reports, supported by the EU's Horizon 2020 programme under GA No. 691874
6. Hanzhenko, O., Humentyk, M., Kwak, V. (2015) The technology of solid biofuel production from Miscanthus. *Bioenerhetyka* [Bioenergetics], *2*, 13-17. [in Ukraine]
7. Hanzhenko, O., Humentyk, M., Kwak, V., Zikov, P. (2013) Influence of variation of the depth of the rhizomes of miscanthus on their germination. *Bioenerhetyka* [Bioenergy], *1*, 36-38. [in Ukraine]
8. Hanzhenko, O., Humentyk, M., Kwak, V. (2014) Sweetchgrass - millet for energy. *The Ukrainian Farmer*, *4*, 88-90. [in Ukraine]
9. Kvak, V. M., Hanzhenko, O. M., Zykov, P. Yu., & Khivrych, O. B. (2017). Method for determination of leaf area in miscanthus. *Novitni agrotehnol.* [Advanced agritechnologies], *5*. URL: http://jna.bio.gov.ua/article/view/122228 [in Ukrainian]

Monographs

1. Fuchilo, Ya.D., Sinchenko, V.M., Hanzhenko, O.M., Humentyk, M.Ya. et al. (2018). *Metodolohiia doslidzhennia enerhetychnykh plantatsii verb i topol: monohrafiia* [Methodology for studying energy plantations of willow and poplar: monograph]. Kiev: LLC "CPU" Comprint ". [in Ukraine]
2. Humentyk, M.Ya., Radeki, B.M. Fuchilo, Ya.D., Sinchenko, V.M., Hanzhenko, O.M. et al. *Vyroshchuvannia bioenerhetychnykh kultur: Monohrafiia* [Growing bioenergetic crops: monograph]. Kiev: LLC "CPU" Comprint ". [in Ukraine]
3. Kurilo, V.L., Hanzhenko, O.M., Humentyk, M.Ya. et al. (2016). *Metodychni rekomendatsii z tekhnolohii vyroshchuvannia i pererobliannia miskantusu hihantskoho* [Methodical recommendations on the technology of cultivation and processing of giant miscanthus] Kiev: LLC "CPU" Comprint ". [in Ukraine]
4. Roik, MV, Sinchenko, V.M., Fuchilo, Ya.D., Hanzhenko, O.M. et al. (2015). *Enerhetychna verba: tekhnolohiia vyroshchuvannia ta vykorystannia* [Energy willow: technology of cultivation and use]. - Vinnitsa: LLC "Nealan LTD."

Author of bioenergy plant varieties

1. Miscanthus x giganteus: variety - Osinnij zoreczvit. Certificate of state registration of a plant variety № 150903 / Applicant: IBCSB // Authors: Roik M.V, Kurylo V.L., Humentyk M.Ya., Gontarenko S.M, Hanzhenko O.M., Kvak V.M.
2. Miscanthus sinensis: variety - Misyachny`j promin`. Certificate of state registration of a plant variety № 150904 / Applicant: IBCSB // Authors: Roik M.V, Kurylo V.L., Humentyk M.Ya., Gontarenko S.M, Hanzhenko O.M., Kvak V.M.

3. Miscanthus sacchariflorus: variety - Snigova koroleva. Certificate of state registration of a plant variety № 150905 / Applicant: IBCSB // Authors: Roik M.V, Kurylo V.L., Humentyk M.Ya., Gontarenko S.M, Hanzhenko O.M., Kvak V.M.
4. Salex Viminalis: variety - Zbruch. Certificate of state registration of a plant variety № 180500 / Applicant: IBCSB // Authors: Roik M.V., Sinchenko V.M., Fuchilo Ya.D., Hanzhenko O.M., Humentyk M.Ya., Mandrovska S.M. ., Fuchilo O.Ya., Sbitna M.V.
5. Panicum Virgatum: variety - Lyadovs`ke. Certificate of state registration of a plant variety № 180839 / Applicant: IBCSB // Authors: Roik M.V, Hanzhenko O.M., Walter Elbersen, Goncharuk G.S., Mandrovska S.M.

Awards and scholarships

- Scholarship of the Cabinet of Ministers of Ukraine for Young Scientists (2003)
- Honorary Diploma of the Verkhovna Rada of Ukraine (2016)

After graduation from the postgraduate department, from 1997 till now Hanzhenko O.M. has been working at the Institute of Bioenergy Crops and Sugar Beet of the National Academy of the Agrarian Sciences of Ukraine. Over 20 years of scientific experience, he has worked in positions: junior, scientific and senior researcher, head of the sector, head of the laboratory and head of the department.

Since 2008, the topic of research work of Hanzhenko O.M. related to the study of technologies for the cultivation and processing of bioenergy plants. From 2011 to 2015, he was a co-director and participant of national research projects to improve the technology of growing sugar sorghum, sugar and fodder beets, miscanthus and switchgrass. According to the research results, recommendations for the cultivation of bioenergy crops in various soil and climatic zones of Ukraine have been developed. At that time, he is working on a concept for the production and use of biofuels in Ukraine. The concept provided to use of raw materials of specially cultivated bioenergy plants for the production of various types of biofuels. It was planned to use low-yielding and degraded lands for this purpose.

Since 2016, Hanzhenko O.M. is the leader of the subprogram for growing raw materials for the production of liquid and gaseous biofuels, which includes 16 national projects.

Since 2016, Oleksandr is a participant in the international project (Germany, Greece, Italy, and Ukraine) on the Development of Bioenergy Crops in Marginal Lands of Europe (SEEMLA) under the Horizons 2020 program.

For fruitful scientific research in the field of bioenergy in 2016, he was awarded the Honorary Diploma of the Verkhovna Rada of Ukraine.

Hanzhenko O.M. is the author over 90 scientific articles, 5 monographs, 20 patents of Ukraine for invention; he is the author of 5 National Standards of Ukraine and 5 varieties of bioenergy plants.