The proposed research projects align with Goal 2 of the United Nations Sustainable Development Goals (SDG 2) — “Zero Hunger.” This goal focuses on ensuring food security, promoting sustainable agriculture, and providing the population with safe and nutritious food.

In general, the studies aim to increase agricultural productivity, maintain soil fertility, improve plant growth, and develop crop varieties resistant to adverse climate conditions. The scientific work examines next-generation plant growth regulators, mineral and organic fertilizers, methods for accelerating seed germination, precision farming technologies, and microbiological approaches. In addition, issues such as soil salinization, agriculture in arid regions, and the identification of pest- and disease-resistant crop varieties are investigated.

These studies contribute to improving the efficiency of agricultural production, increasing both the quality and quantity of yields, reducing environmental impact, and promoting the rational use of natural resources. As a result, food security is strengthened, and conditions are created to ensure a stable and sufficient food supply for the population.

Overall, the research makes an important contribution to the development of sustainable agriculture, the prevention of hunger and malnutrition, and the strengthening of socio-economic stability in society.

1.

Title	A Comprehensive Review of New Generation Plant Growth Regulators
Authors	Zhumanova, N.| Akimbayeva, N.| Myrzakhmetova, N.| Dzhiembaev, B.| Kuandykova, A.| Diyarova, B.| Seilkhanov, O.| Kishibayev, K.| Meldeshov, A.| Saparbekova, I.| Yerezhepova, A.
Year	2024
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85207789944&origin=resultslist
DOI	10.30919/esfaf1190

2.

Title	Mapping of Cornfield Soil Salinity in Arid and Semi-Arid Regions
Authors	Smanov, Z.M.| Laiskhanov, S.U.| Poshanov, M.N.| Abikbayev, Y.R.| Duisekov, S.N.| Tulegenov, Y.A.
Year	2023
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85143847562&origin=resultslist
DOI	10.12911/22998993/155952

3.

Title	Preparation of Granular Organic Iodine and Selenium Complex Fertilizer Based on Biochar for Biofortification of Parsley
Authors	Doszhanov, Y.| Atamanov, M.| Jandosov, J.| Saurykova, K.| Bassygarayev, Z.| Orazbayev, A.| Turganbay, S.| Sabitov, A.
Year	2024

Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85217457468&origin=resultslist
DOI	10.1155/2024/6601899

4.

Title	Dynamics of germination of vegetable seeds when using dimethyl (1-hydroxy-1-phenylethyl) phosphanate as an accelerator
Authors	Baitasheva, G.| Mussina, A.| Medeuova, G.| Kuandykova, A.| Imanova, E.| Sartayeva, A.| Zhamanbayeva, K.| Umbetulla, A.
Year	2024
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85210249485&origin=resultslist
DOI	10.22124/cjes.2024.8138

5.

Title	Effect of fertilizer application on winter wheat productivity under precision agriculture in Kazakhstan
Authors	Baimuratov, A.| Bastaubayeva, S.| Arslan, M.| Yeraliyeva, Z.
Year	2021
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85103249941&origin=resultslist
DOI	10.13057/BIODIV/D220362

6.

Title	Environmental Consequences of Virgin and Fallow Lands Development in Kazakhstan
Authors	Mazhitova, Z.| Shamshidenova, F.| Isakhan, G.| Kurmangali, G.| Azmukhanova, A.| Zhalmurzina, A.| Bibizhamal, O.
Year	2023
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85149917867&origin=resultslist
DOI	10.1007/978-3-031-21219-2_261

7.

Title	Effect of nacl toxicity on development and anatomical structure of varieties of sorghum saccharatum (L.) in kazakhstan
Authors	Kirshibayev, Y.| Mukasheva, D.
Year	2022
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85120171001&origin=resultslist
DOI	10.3923/ajps.2022.119.129

8.

Title	Enhancing Alfalfa Productivity with Tuber: Associated and Cellulolytic Bacteria in the Aral Sea Region
Authors	Asenov, A.| Sadykova, D.| Kunakbayev, A.| Iliyaskyzy, M.| Rizbekova, A.
Year	2023
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85172694941&origin=resultslist
DOI	10.18280/ijdne.180415

9.

Title	Identification of the carriers of genes for resistance common bunt, Tilletia caries (DC) Tul. using molecular and breeding methods
Authors	Safarova, N.| Amangeldi, N.| Amangeldikyzy, Z.| Sarsembayeva, A.| Yesentureeva, G.| Abdukerim, R.| Mombayeva, B.| Rsymbetov, A.
Year	2024
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85201822446&origin=resultslist
DOI	10.22124/cjes.2024.7918

10.

Title	Development of yellow rust in grain crops and wild cereal grasses and damage to winter wheat varieties
Authors	Tileubayeva, Z.| Nazarbekova, S.| Aytzhanova, M.| Zhussupova, A.| Saparbaeva, N.
Year	2024
Abstract in Scopus	https://www.scopus.com/record/display.url?eid=2-s2.0-85190495894&origin=resultslist
DOI	10.1051/bioconf/202410004040