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Report Highlights:

In the past year, there have been no major changes in Kazakhstan's biotechnology policy. Kazakhstan continues to rely on Eurasian Economic Union (EAEU) regulations for guidance on biotechnology issues. Genetically engineered (GE) seeds are currently only permitted to be grown in laboratories. Despite success by Kazakhstani researchers in developing new GE varieties, the Government of Kazakhstan shows little interest in developing new regulations more favorable to biotechnology at this time.

EXECUTIVE SUMMARY:

Since Kazakhstan withdrew draft biotechnology legislation in May 2016, essentially all progress on biotechnology issues has stopped. Without this law in place, development of agricultural biotechnology will remain constrained in Kazakhstan.

As a member of The Eurasian Economic Union (EAEU), policies and views of the other member states, especially Russia, play a key role in regulating biotechnology in Kazakhstan. In particular, Kazakhstan has made a point of enforcing EAEU labeling regulations on GE products.

Covering nearly half of all planted area, wheat dominates Kazakhstan's crop production. The Ministry of Agriculture has a strategy of diversifying crop production away from wheat and into more feed grains and oilseeds. The Ministry is also actively seeking foreign investment and modernization in the agricultural sector; however, agricultural biotechnology is not part of the Ministry's latest five-year Agricultural Plan.

A 2015 amendment to the 2003 law "On Seed Farming" restricts new testing and prohibits commercial growth of GE seeds. However, biotechnology research may be conducted in laboratory greenhouses, and the National Center for Biotechnology (under the Ministry of Education and Science) has developed a transgenic breed of cotton with higher pesticide resistance, as well as a disease-resistant GE potato.

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CHAPTER 1: PLANT BIOTECHNOLOGY

PART A: PRODUCTION AND TRADE:

a) PRODUCT DEVELOPMENT: Since the 2015 amendment to the Law "On Seed Farming," which prevents full field trials or commercial production of genetic engineering events, research and development in Kazakhstan has been constrained, and testing limited to laboratory greenhouses. The National Agrarian Scientific Education Center (NASEC), under the Ministry of Agriculture, manages 16 agricultural research and education institutes. This group focuses on traditional methods of product development. The National Center for Biotechnology (NCB) under the Ministry of Science and Education has a small agricultural research component, which has developed biological fertilizers and pesticides, fungal strains for resistance testing, and new varieties of wheat and potato. As a first step into genetic engineering, NCB has developed one transgenic cotton variety[1] that is resistant to the herbicide phosphinothricin (glufosinate), but that cotton cannot be field tested or commercialized in Kazakhstan due to the regulatory environment.

   As of October 2020, the scientists from the M. Aitkhozhin Molecular Biology and Biochemistry Institute under the Ministry of Education and Science have developed a new GE potato[2]. The transgenic potato has significantly higher resistance to Potato Virus Y compared to conventional potato breeds. The lines of transgenic potato are reportedly under field trials at the Potato and Vegetable Research Institute, which is operated by the Ministry of Agriculture.

b) COMMERCIAL PRODUCTION: Kazakhstan does not produce any GE crops commercially, and without the passage of new legislation, it is unlikely that substantial development will occur. In the agricultural development program designed by the Ministry of Agriculture for 2017-2021 there is no mention of GE crops or GE technologies, despite a need for significant expansion of feed production. Kazakhstan crop production is dominated by wheat, which accounts for 54 percent of all field crop area, and 77 percent of all grain and legume production. Crops for which common GE varieties exist globally for commercial use are not significant in Kazakhstan, with corn at only one percent and soybeans at 0.5 percent of total planted area. Oilseed area (flax, rapeseeds, sunflower, safflower, etc.) has been increasing, and in 2020 reached a historical high of 13 percent of total planted area. Cotton area is only one percent of the total, and sugar beet production area is only 0.1 percent of the total planted area. The Kazakhstani Government is supporting efforts for crop diversification away from wheat, but to date there has been little demand for GE crop seeds. Most foreign seed suppliers are focused on providing hybrid seeds to Kazakhstan.

c) EXPORTS: There is no commercial production of GE crops in Kazakhstan, nor does Kazakhstan export any GE crops to the United States or other countries.

d) IMPORTS: Imports of GE crops or products are technically allowed into Kazakhstan according to EAEU regulations, which cover Belarus, Russia, Armenia, Kyrgyzstan and Kazakhstan. For instance, the EAEU Technical Regulation on Grain stipulates that grain/oilseeds for either food or feed use may only contain GE lines registered in accordance with the legislation of the individual member states of the EAEU, and that the presence of non-registered GE grain lines shall not exceed 0.9 percent. Because Kazakhstan lacks a process by which to register new lines, Russia has become the default approver. Please see the FAS Moscow's 2019 GAIN Agricultural Biotechnology Annual

[1] The link is available in Russian language only.
[2] The link is available in Russian language only.

Report for the Russian Federation for a list of lines registered in Russia/EAEU for importation. Note that these approvals are not officially recognized in Kazakhstan, but are used in practice. Kazakhstan imports only small amounts of corn and soybeans. In 2019, soybean imports reached the historical record of 35,757 metric tons (MT), but declined again during January-July 2020 to 11,767 MT. Most soybeans are imported from Russia. Kazakhstan's law "On Seed Farming" specifies that GE seeds are prohibited for planting.

e) FOOD AID: Kazakhstan is not a food aid recipient. Historically, Kazakhstan made some shipments of wheat, barley, and vegetable oil as part of humanitarian aid to Kyrgyzstan and Afghanistan, and the country is considering providing food aid in the future. In 2020, Kazakhstan provided in-kind food aid of grain, flour, vegetable oil, and similar products to some countries in Central Asia (Tajikistan, Afghanistan, Uzbekistan, and Kyrgyzstan). Because all crops grown in Kazakhstan are non-GE, all provided food aid would also be non-GE.

f) TRADE BARRIERS: All imported GE grains and oilseeds must have their lines registered in the EAEU prior to entering Kazakhstan, and the presence of non-registered lines cannot exceed 0.9 percent. Kazakhstan's imports of U.S. corn and soybeans (and soybean products) are currently minimal, in part because the GE lines are not registered. In 2012 and 2013, Kazakhstan and Russia both banned the importation of GE-corn NK603 as a result of a study published by a French scientist questioning the safety of that type of GE-corn. The European Food Safety Authority (EFSA) responded to this study by stating that it was "of insufficient scientific quality to be considered as valid for risk assessment" and that "such shortcomings mean that EFSA is presently unable to regard the author's conclusions as scientifically sound." Russia removed the ban without any public acknowledgement, and Kazakhstan has not made public the status of its ban. Given the lack of information regarding its status, no one has attempted to import this line of corn. Kazakhstan continues to test for the presence of GE content in foods, leading to periodic removal of products from store shelves. For example, in September 2020 Kazakhstan's Ministry of Health removed South Korean noodles and Turkish cookies from stores due to the detection of GE soy content.

PART B: POLICY

a) REGULATORY FRAMEWORK: Significant development of agricultural biotechnology is unlikely to occur in Kazakhstan without any comprehensive law in place. When the country was actively seeking entrance to the World Trade Organization (WTO), Kazakhstani President Nursultan Nazarbayev instructed the government to adjust the plan for the development of the agro-industrial complex to permit GE crops. The Ministry of Education and Science presented a draft law, "On State Regulation of Genetic Engineering Activities," (please see 2016 Kazakhstan Agricultural Biotechnology Report for an unofficial translation of the entire law). The draft law remained stalled in the Kazakhstani Parliament until Government Decree No 307 dated May 30, 2016[3] withdrew the draft, citing budgetary stress. Now political forces are no longer focused on biotechnology, despite a big push to modernize and expand agricultural production in the country.

The 2003 law "On Seed Farming" included provisions to allow the sowing of GE seeds in Kazakhstan. In November 2015, the law was amended[4] to become more restrictive. Article 13 of the law expressly prohibits commercial use and planting of crops derived from genetic engineering. Where previously exceptions were in place to allow for field trials of GE seeds, they now can only

[3] The link is available in Russian language only.
[4] The link is available in Russian language only.

be planted in laboratory greenhouses. This change severely limits testing and prevents commercial production.

b) APPROVALS: Because Kazakhstan lacks its own legislation to regulate GE approvals, the registration of GE lines for the entire EAEU for use in food is done by the Federal Service for Surveillance of Consumer Rights Protection and Human Welfare of the Russian Federation (Rospotrebnadzor). GE lines for use in feed are approved by Russia's Federal Veterinary and Phytosanitary Surveillance Service (VPSS). For new EAEU regulatory updates and the list of approved lines please see the most recent Agricultural Biotechnology Annual report produced by FAS Moscow at https://gain.fas.usda.gov/.
c) STACKED OR PYRAMIDED EVENT APPROVALS: In the absence of its own regulations, Kazakhstan relies on EAEU and, by extension, Russian rules on all approvals. Without regulations for stacked or pyramided event approvals, they are all in effect banned.
d) FIELD TESTING: Unless the Government of Kazakhstan redrafts its law "On State Regulation of Genetic Engineering Activities," it is unlikely any field trials will occur.
e) INNOVATIVE BIOTECHNOLOGIES: Kazakhstan has not addressed the regulation of plant products derived from genome editing. To date there has been little attention paid to these technologies, except in scientific circles.
f) COEXISTENCE: Not applicable since there is no mechanism for cultivation of GE crops.
g) LABELING: Labeling rules are covered by a Customs Union Technical Regulation on Labeling (please see Appendix 1), which came into force on July 1, 2013. This regulation states that all products containing more than 0.9 percent GE-ingredients must be labeled as such. Also, the regulation states that labeling of food products as non-GE is voluntary.
h) MONITORING AND TESTING: In 2020, the National Expert Assessment Center of the Committee for Goods and Services Quality Control and Safety of Kazakhstan's Health Ministry detected GE content in instant noodles from South Korea and cookies from Turkey. The Center reported that lab testing identified GE soybeans in concentrations exceeding the 0.9 percent maximum, while the manufacturers' labels did not contain information on GE content. Local government officials sought to locate these products and remove them from retail sale. This action appears to be part of the Center's regular testing program, though the details of testing frequency and methodology are not published.
i) LOW LEVEL PRESENCE (LLP) POLICY: According to EAEU Regulations, food products may be up to 0.9 percent unapproved GE products.
j) ADDITIONAL REGULATORY REQUIREMENTS: The Kazakhstani law "On Seed Farming" prohibits any significant planting of GE seeds.
k) INTELLECTUAL PROPERTY RIGHTS (IPR): The Kazakhstani Law "On Selection Achievements Copyright" allows for patents for plant and crop improvements.
l) CARTAGENA PROTOCOL RATIFICATION: Kazakhstan ratified the Cartagena Protocol in 2008.
m) INTERNATIONAL TREATIES and FORUMS: Kazakhstan is member of the World Trade Organization, the World Health Organization, Codex Alimentarius, and the International Plant Protection Convention. At the 40th session of the Codex Alimentarius Commission held in Geneva on July 17-22, 2017, the Republic of Kazakhstan was elected as a coordinator of the FAO/WHO Coordination Committee for Europe for 2018-2019. However, Kazakhstan has not actively participated in discussions or announced positions with regards to biotechnology. Kazakhstan is in

the process of becoming a signatory of the International Union for the Protection of New Varieties of Plants (UPOV).

n) RELATED ISSUES: none

PART C: MARKETING

a) PUBLIC/PRIVATE OPINION: There is limited active campaigning about GE products and production, and mass media on the topic generally originates from Russia or Europe. Since Kazakhstan produces few crops for which GE varieties exist, this issue is not of great importance to farmers groups or the Ministry of Agriculture. Although biotech feed components may prove necessary for the Ministry's targeted increase in livestock production, to date there has been little acknowledgement of this. There is a general lack of knowledge and understanding of biotechnology among farmers and consumers, and significant pride in agricultural production that is seen as "ecologically clean."
b) MARKET ACCEPTANCE / STUDIES: In Kazakhstan, the public is apprehensive about purchasing GE products. No known marketing studies exist on the acceptance of GE plants or products in Kazakhstan.

CHAPTER 2: ANIMAL BIOTECHNOLOGY:

PART D: PRODUCTION AND TRADE

a) PRODUCT DEVELOPMENT: There are no GE animals or livestock cloning projects known to be under development in Kazakhstan.
b) COMMERCIAL PRODUCTION: The Government has made increased cattle production the top agricultural priority and hopes to turn Kazakhstan into a beef exporter. While this strategy includes importing pedigree breeding animals, semen, and embryos, it has not encouraged research of GE animals or clones.
c) EXPORTS: Kazakhstan does not export any GE animals or livestock clones.
d) IMPORTS: Kazakhstan does not import any GE animals or livestock clones, but there are no restrictions in place.
e) TRADE BARRIERS: Kazakhstan has imported U.S. livestock in substantial quantities, and there have never been any GE-related or cloning related trade barriers to date.

PART E: POLICY

a) REGULATORY FRAMEWORK: The approval process and governing bodies responsible for regulating biotechnology in the draft law "On State Regulation of Genetic Engineering Activities" did not differentiate between plant and animal biotechnology. Since the draft's withdrawal, there is no regulatory framework for animal biotechnology in Kazakhstan.
b) APPROVALS: Not applicable
c) INNOVATIVE BIOTECHNOLOGY: Kazakhstan has not addressed the regulation of animals derived from genome editing.
d) LABELING AND TRACEABILITY: Not applicable
e) INTELLECTUAL PROPERTY RIGHTS (IPR): There are no patent rights established for GE animals or cloned products.

f) INTERNATIONAL TREATIES and FORUMS: Kazakhstan is member of World Trade Organization, the World Health Organization, Codex Alimentarius, and the World Organization for Animal Health (OIE). However, the country has not actively participated in discussions related to animal biotechnologies, nor has it made noteworthy positions at these forums.
g) RELATED ISSUES: Not applicable

PART F: MARKETING

a) PUBLIC/PRIVATE OPINIONS: Not applicable
b) MARKET ACCEPTANCE/STUDIES: There are no known market studies on the marketing of GE animals in Kazakhstan.

CHAPTER 3: MICROBIAL BIOTECHNOLOGY

PART G: PRODUCTION AND TRADE

a) COMMERCIAL PRODUCTION: Not applicable
b) EXPORTS: The only microbial biotech-derived food ingredients exported by Kazakhstan are those traditionally used in the production of alcoholic beverages, dairy products, and processed products. Likewise, Kazakhstan may export finished products containing microbial biotech-derived food ingredients.
c) IMPORTS: The only microbial biotech-derived food ingredients imported by Kazakhstan are those traditionally used in the production of alcoholic beverages, dairy products, and processed products. Likewise, Kazakhstan may import finished products containing microbial biotech-derived food ingredients.
d) TRADE BARRIERS: Not applicable

PART H: POLICY

a) REGULATORY FRAMEWORK: Kazakhstan has not addressed issues related to microbial biotechnology in regulation. Existing EAEU regulations limiting GE content to 0.9 percent in food and feed would also apply to microbial biotechnology.
b) APPROVALS: As with other biotechnology, there is no existing legal framework to approve microbial biotechnology.
c) LABELING and TRACEABILITY: Labeling rules that apply to other forms of biotechnology would also apply.
d) MONITORING AND TESTING: Not applicable.
e) ADDITIONAL REGULATORY REQUIREMENTS: Not applicable.
f) INTELLECTUAL PROPERTY RIGHTS (IPR): Not applicable.
g) RELATED ISSUES: Not applicable.

PART I: MARKETING

a) PUBLIC/PRIVATE OPINIONS: Not applicable.
b) MARKET ACCEPTANCE/STUDIES: There are no known market studies on microbial biotechnology in Kazakhstan.

Attachments:

No Attachments