#### Information about author



### 1. First name, last name:

Zhiyenbayeva Saule.

# 2. Position, scientific degree, academic Title

doctor of technical sciences, docent, associate professor department of "Technology of bakery products and processing industries".

#### 3. Education:

- Dzhambul technological institute of light and food industry, diploma with honors IV № 335950, dated June 14, 1985, specialty "Storage and technology of grain processing" with the qualification "Engineer-technologist";
- diploma of candidate of technical sciences GK № 0011150 dated March 19, 2004. Specialty 05.18.01 "Technology of processing, storage and processing of cereals, legumes, cereals, fruits and vegetables and viticulture";
- docent in the specialty "Technology of food products" DC № 0000835 dated December 22, 2008 (protocol № 13) of the Committee for Control in the Sphere of Education and Science of the MES of the RK;
- doctor of technical sciences, GD № 0001846 dated May 13, 2011 (protocol № 3) in the specialty 05.18.01- "Technology of processing, storage and processing of cereals, legumes, cereals, fruits and vegetables and viticulture";

# 4. Area and directions of the researches, including participation in scientific projects with the short description of the results of research:

Area and directions of research:

- technology of storage and processing of grain and grain products, technology of cereal production, technology of animal feed.

## Participation in scientific projects:

- responsible executor of the project on the topic "Development and implementation of effective technology for compound feed for sports horses, cattle, sheep and pond fish using feed additives based on waste from rice mills and natural minerals" 2009-2012, funded by the World Bank in accordance with the State target Programs by order of the Ministry of Agriculture of the Republic of Kazakhstan. (state registration № 0109RK01473);

#### Results:

recipes and technology of compound feed for sports horses, cattle, sheep and pond fish were developed using feed additives based on waste from rice mills and natural minerals. The results of the research are implemented in Bakanas LLP.

- Executor of the project "Development and implementation of nanotechnology for processing, storage and processing of grain in the field of electromagnetic cavitation at elevators and grain processing enterprises" 2011-2013. (state registration № 0109RK01473);

#### Results:

modes and nanotechnology for processing, storage and processing of grain in the field of electromagnetic cavitation have been developed. The results of scientific-research works were implemented at the elevators and grain processing enterprises of the Republic of Kazakhstan.

- Concurrently, the responsible executor of the project of "Kazakh scientific research institute of processing and food industry" LLP, processing and food industry on the topic "Development of technology for feed and feed additives based on by-products of processing crop products" 2012-2014 (state registration № 0112RK01303).

#### Results:

science-based feed additive recipes for cattle, pigs and horses have been developed using by-products of crop processing and natural minerals.

Production tests were carried out on the effectiveness of the use of compound feed based on a feed additive from by-products of processing crop products for dairy cows at Bayserke "Agro" LLP. Scientific and economic experiments on fattening horses for 6 months to establish the effectiveness of compound feeds containing feed additives from secondary products of processing crop products showed that when horses were fed an experimental batch of compound feed № PK 70-2k, their live weight increased by 18-20 % compared to with the control option.

The standard RK standard for feed additive from secondary products of processing crop products for farm animals has been developed.

- Head of the initiative scientific-research work on the topic "Development of compound feed technology based on an energy-protein additive for poultry, animals" 2014-2016. (state registration № 0115RK00266).

#### Results:

recipes and technology of an energy-protein supplement using waste oil and fat production: phosphatide concentrate were developed. Abstracts were published, a patent of the RK was

received.

# 5. The list of the main scientific publications, no more than 20 (patents, developed standards):

- 1. Zhienbayeva S.T. Rapeseed oil in bird feeding Proceedings of the Kyrgyz State Technical University named after R.I. Razzakov, 2008, № 13. -189-191p.;
- 2. Iztayev A.I., Zhienbayeva S.T. Eleukenova K.A. Shungite in feed for broiler chickens. Proceedings of the Kyrgyz State Technical University named after R.I. Razzakova, 2008, No. 13. -191-193p.;
- 3. Iztayev A.I., Alimkulov Zh.S., Zhienbayeva S.T. Kurama zhemnin zhemdik κұndylygy men korektiligin zhogarylatudyn tekhnologiyalyκ negizderi. Monograph.-Almaty: Altyn baspa, 2010.-204 p.;
- 4. Zhienbayeva S.T., Iztayev A.I., Alimkulov Zh.S., Omarov K.K., Eleukenova K.A., Batyrbaeva N.B. Recommendations on the effectiveness of the use of compound feed containing by-products of rice processing for farm animals. "Zhaniya-Polygraph", 21.11.2011.-28p.;
- 5. Zhienbayeva S.T., Alimkulov Zh.S. Zhemdik kospa negizindegi κұrama zhem andirisinin tekhnologiyalyκ protsesin modeldeu. News of science of Kazakhstan. Almaty: NTs NTI, 2011.-№ 1.-p.100-107;
- 6. Zhienbayeva S.T., Alimkulov Zh.S. One- and two-stage grinding of the feed mixture. Compound feed. Moscow: Ministry of Agriculture of the Russian Federation, 2011. № 6. P. 67;
- 7. Zhienbayeva S.T., Alimkulov Zh.S. Kazakhstan is strengthening the forage base. Compound feed. Moscow: Ministry of Agriculture of the Russian Federation, 2012. No. 4. P. 21-22;
- 8. Zhienbayeva S.T., Izembayeva A.K., Iztayev A.I., Muldabekova B.Zh. The use of composite mixtures in the production of biscuits. Bulgarian Journal of Agricultural Science, 19(№ 1) 2013, p.28-31;
- 9. Iztayev A.I., Zhienbayeva S.T. Standard ST RK 28264-1910-AO-01-2011. Feed additive for farm animals based on rice processing;
- 10. Rational use of wastes from plant products processing. Bulgarian Journal of Agricultural Science, 20 (№ 3), 2014, pp. 544-547;
- 11. Zhienbayeva S.T., Ermukanova A.M. Development of feed technology for broilers using by-products of oilseeds. Vestnik ATU, 2022; № 1.-P.42-49;
- 12. Zhienbayeva S.T., Alimkulov Zh.S., Ermukanova A.M. Improving the quality of animal feed using the mineral vermiculite. Alimkulov Zh.S., Ermukanova A.M. Compound feed, No. 6.2022.-P.44-50.

#### **Patents:**

1. Iztayev A.I., Zhienbayeva S.T., Eleukenova K.A. Innovative patent № 21387 RK. 27.04.2009. Premix;

- 2. Zhienbayeva S.T., Eleukenova K.A. Innovative patent No. 22339 of the Republic of Kazakhstan; A method for stabilizing iodides in premixes. Published 01/25/2010. Bull. № 3.-7s.;
- 3. Zhienbayeva S.T., Baibatyrov T.A. Innovative patent No. 23305 RK dated 04.11.2010. Method for increasing the nutritional value of rapeseed cake;
- 4. Kulazhanov K.S., Iztaev A.I., Alimkulov Zh.S., Zhienbayeva S.T. Innovative patent № 23306 RK dated 04.11.2010. Method for obtaining a feed additive for farm animals;
- 5. Iztaev A.I., Alimkulov Zh.S., Zhienbayeva S.T. Innovative patent No. 25843 RK dated May 18, 2012. Published on July 16, 2012, Bull. № 7. Compound feed based on feed additive from rice mill waste for farm animals;
- 6. Alimkulov Zh., Zhienbayeva S.T., Shaimerdenova D.A. Innovative patent № 25844 RK dated 19.05.2012. Published on July 16, 2012, Bull. № 7. Feed additive based on by-products of barley processing for farm animals;
- 7. Alimkulov Zh.S., Zhienbayeva S.T., Batyrbayeva N.B. Innovation patent № 27584 of the Republic of Kazakhstan dated 28.10.2013. Granular feed additive from secondary winemaking products for farm animals;
- 8. Zhienbayeva S.T., Batyrbaeva N.B., Zholdaspekova A.M., Nurmat D.N. Innovative patent of the Republic of Kazakhstan № 31728 dated December 30, 2016. Bulletin № 18. Method for obtaining a granular energy-protein supplement using fat-and-oil industry waste;
- 9. Zhienbayeva S.T., Ermukanova A.M. A method for stabilizing iodides in premixes using vermiculite. Patent of the RK № 5982 dated April 16, 2021;
- 10. Zhienbayeva S.T., Ermukanova A.M. Method for the production of granular feed. Patent of the RK № 6928 dated March 11, 2022.

## 6. Scientific internships:

- foreign scientific internship on the topic "Systems of modern education in European universities." Czech Republic, Prague, Prague University of Chemistry and Technology, 2015;
- foreign scientific internship on the topic "Modern methods of analysis based on nanotechnology and the determination of compounds in food products", Italy, Milan, University of Milan, 2015;
- foreign scientific internship on the topic "Methodology for organizing and conducting research in the Kyrgyz Republic and at the Scientific-research institute of chemical technology", Kyrgyz Republic, Bishkek, Research institute of chemical technology at the Kyrgyz state technical university named after I. Razzakov, 2015.

# 7. Achievements in research, teaching activities (awards):

- Badge "For merits in the development of science of the Republic of Kazakhstan" of the MES of the RK, December 6, 2013;
- Grant of the MES of the RK "The best teacher of the university" 2014;

- Honorary diploma of the MES of the RK, 2017.

# 8. E-mail address, contact details (tel.: work (ext.), cell.):

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