

Innovative technologies of grain sorghum processing

Kashapov N., Nafikov M., Nigmatzyanov A., Mingazov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© Published under licence by IOP Publishing Ltd. The article presents materials for the production of grain sorghum food products that allows you to completely eliminate from the diet foods containing gluten, vegetable oil from germ of grain sorghum, nanocellulose, tannin, amylopectinosis sorghum starch and glucose-fructose syrup.

<http://dx.doi.org/10.1088/1757-899X/412/1/012036>

References

- [1] Nafikov M M, Yakushkin N M, Fomin V N, Kashapov N F, Fomin D V and Nigmatzyanov A R 2016 Sugar sorghum: technological and economic aspects of cultivation in the Republic of Tatarstan (Kazan: Publishing house "ZnakC" IP Sizikov) 40
- [2] SHepel' N A 1994 Sorghum (Volgograd: press Committeep) 448
- [3] Bol'shakov A Z, Bondarenko S M, Kadyrov S V and Klepko YU N 2008 Rostov-on-don: ZAO "Rostizdat" 60
- [4] Kadyrov S V, Fedotov V A and Bol'shakov A Z 2008 Sorghum in the Central Chernozem region (Rostov - on-Don: ZAO "Rostizdat") 80
- [5] Alabushev A V, Alabusheva O I and Anipenko L N 2004 Recommendations for the preparation of feed from sorghum and use in the diets of farm animals and poultry (Zernograd) 32
- [6] Kovtunov V V and Gorpichenko S I 2011 The main areas of use of grain sorghum grain farming 6 28-32
- [7] Amira C D 1992 Small grains in monogastric and ruminant feed formula-tions: Prospects and problems. In: Utilisation of sorghum and millets (Patancheru, India: International Crops Research Institute for the Semi-Arid Tropics) 183-90
- [8] Kashapov N F, Nafikov M M, Gazetdinov M H and Nafikova M M 2015 Materials of the International scientific and technical conference "Innovative engineering technologies, equipment and materials - 2015"(MNTC" IMTOM-2015") Waste-free production technology of alcohol from sugar sorghum 288-91
- [9] Kashapov N F, Nafikov M M, Gazetdinov M. H., Nafikova M M and Nigmatzyanov A R 2016 Innovative technology for the production of ethanol from sweet sorghum IOP conference Series: materials science and Engineering 012012