# NEW GRADE OF WINTER TRITICALE BEREKET

**Kh.A. MALKANDUEV1, V.Ya. KOVTUNENKO2, A.Kh. MALKANDUEVA1,**

**V.V. PANCHENKO2, R.I. SHAMURZAEV1, A.P. KALMYSH2, A.I. SARBASHEVA1**

1. Institute of agriculture –

Branch of Federal state budget scientific institution, Federal scientific center

"Kabardin-Balkar scientific center of the Russian Academy of Sciences»

360004, KBR, Nalchik, Kirova str., 224 E-mail: kbniish2007@yandex.ru

1. Federal State Budget Scientific Institution "National Center for Grain named after P.P. Lukyanenko"

350012, Krasnodar-12, Central Estate KNIISH E-mail: kniish@kniish.ru

*The article is devoted to triticale breeding work in the Institute of Agriculture of the KBSC RAS, which is carried out jointly with the Federal State Budget Scientific Institution Scientific Center named after P.P. Lukyanenko and is aimed at obtaining new highly productive varieties. As a result of the work, a variety of winter triticale Bereket was created, the authors of which are: Romanenko A.A., Bespalova L.A., Kovtunenko V.Ya., Panchenko V.V., Kalmysh A.P., Mokhova L.M., Malkanduev Kh.A., Malkandueva A.Kh., Shamurzaev R.I. Since 2019, the variety has been included in the State Register of Breeding Achievements of the Russian Federation and allowed in 4 regions: Central (3), Central Black Soil (Chernozem) (5), North Caucasus (6) and Lower Volga (8) regions. Patent No. 10550, Russian Federation, breeding achievement of winter triticale Bereket, C1 / applicants: 25, 19620; Application No. 8354648 dated 12/30/2015; published March 12, 2019, bulletin No. 4 (244), part IV, t. IV. 5. – 257 s.*

*Variety Bereket is intended for cultivation for grain fodder. For food purposes, it can be used for baking cookies and bread using rye technology, alcohol, for the production of bioethanol. The maximum yield for the Bereket variety was obtained under the conditions of “NPZ named after. P.P. Lukyanenko” according to the predecessor sunflower - 78.2c / ha, in the Institute of Agriculture of the KBSC RAS on average for 2014-2019. - 61 c / ha. The variety is highly immune to major diseases. Bereket successfully passed the tests on the variety sections of the Russian Federation, located in various soil and climatic zones of the country. The high yield potential, wide adaptability and field resistance give reason to recommend a new variety of winter triticale Bereket for wide use in the production of the Russian Federation.*

**Keywords:** triticale, variety, productivity, mass of 1000 grains, protein content, disease resistance.

## REFERENCES

1. Sokol N.V., Donchenko L.V., Lakeu M.Y., Kruglyakova S.A., Timofeev V.B., Kovtunenko V.Ya. *Vozmozhnosti tritikale v khlebopechenii s ispol'zovaniyem pektina* [Possibilities of triticale in bakery using pectin] // *Materialy nauchno-prakticheskoy konferentsii «Zelenaya revolyutsiya P.P. Luk'yanenko»* [Materials of the scientific-practical conference «Green Revolution P. P. Lukyanenko»]. Krasnodar: Soviet Kuban, 2001. Pр. 386-392.
2. Kovtunenko V.Ya., Panchenko V.V., Kalmysh A.P. *Selektsiya i dostizheniya po tritikale v NTSZ im. P.P. Luk'yanenko* [Breeding and achievements in triticale in the NCG named after P.P. Lukyanenko] // *Sbornik statey Vserossiyskoy nauchnoy konferentsii s mezhdunarodnym uchastiyem, posvyashchennoy 120-letiyu N.V. Tsitsina* [Collection of articles of the all-Russian scientific conference with international participation dedicated to the 120th anniversary of N.V.

Tsitsin]. Moscow. 2019. Pр. 56-58.

1. Kovtunenko V.Ya., Bespalova L.A., Panchenko V.V., Kalmysh A.P. *Napravleniya i rezul'taty selektsii tritikale v FGBNU «Krasnodarskiy NIISKH im. P.P. Luk'yanenko»* [The directions and results of triticale breeding in the FSSI "Krasnodar research Institute of agriculture named after P.P. Lukyanenko"] // *Trudy Kubanskogo gosudarstvennogo agrarnogo universiteta* [Proceedings of the Kuban State Agrarian University]. Krasnodar. 2017. No. 66. Pр. 115-120.
2. Grabovets A.I. *Tritikale – kul'tura kakogo roda i dlya kakikh tseley? [Elektronnyy resurs]* [Triticale - what kind of culture and for what purposes? [Electronic resource]. Access mode: http: // [www.agroyug.ru]](http://www.agroyug.ru/) // *Agropromyshlennyy portal Yuga* *Rossii* [Agricultural portal of the South of Russia], January 31, 2012.
3. Grabovets A.I., Krokhmal A.V. *Perspektivy vozdelyvaniya ozimogo tritikale v tsentral'nom regione Rossii* [Prospects for the cultivation of winter triticale in the central region of Russia] // *Vladimirskiy zemledelets* [Vladimir farmer]. 2012. No 1 (59). Pр. 16-19.
4. Komarov N.M., Atamanchenko P.M., Pospelova L.S., Bondarenko G.M. *Ispol'zovaniye tritikale kak kormovoy kul'tury* [The use of triticale as a forage crop] // *Selektsiya, semenovodstvo i vozdelyvaniye polevykh kul'tur* [Selection, seed production and cultivation of field crops]. Rostov-on-Don, 2004. Pр. 409-416.
5. *Obzor rynka tritikale v Rossii [Elektronnyy resurs]* [Market overview of triticale in Russia [Electronic resource]]. Access mode: http: // www.openbusiness, 2016.
6. *Posevnyye ploshchadi rasteniyevodcheskikh kul'tur po vidu v Rossii po regionam. Itogi 2019 goda [Elektronnyy resurs]* [Sown areas of crop crops by type in Russia by regions. Results of 2019 [Electronic resource]]. Access mode: http: // *Ekspertno-analiticheskiy tsentr Agrobiznesa* [Expert and analytical center of Agribusiness]. www.ab. – center. Ru.
7. Goryanina T.A., Bisharev A.A. *Novyy sort ozimogo tritikale Krokha* [A new variety of winter triticale Kroha] // *Vestnik Ul'yanovskoy GSKHA* [Bulletin of the Ulyanovsk State Agricultural Academy], 2019. No. 4 (48). Pр. 20-24.
8. Goryanina T.A. *Tekhnologicheskiye i khlebopekarnyye svoystva zerna sortov tritikale v sravnenii s ozimoy pshenitsey i ozimoy rozh'yu* [Technological and baking properties of triticale grains in comparison with winter wheat and winter rye] // *Dostizheniya nauki i tekhniki APK* [Achievements of science and technology of the agro-industrial complex]. 2011. No. 12. Pр. 30-32.
9. Malkanduyev Kh.A., Malkanduyevа A.Kh., Shamurzaev R.I. *Sozdat' novyye genotipy zernovykh kul'tur s uluchshennymi slozhnymi ekonomicheski znachimymi svoystvami (produktivnost', kachestvo), povyshennoy ustoychivost'yu k bio- i abiofaktoram sredy* [To create new cereal genotypes with improved complex economically significant properties (productivity, quality), increased resistance to bio- and abiofactors of the environment] // *FGANU «Tsentr informatsionnykh tekhnologiy i sistem organov ispolnitel'noy vlasti». Otchet o NIR (chast' 2, promezhutochnyy)* [Center for Information Technologies and Systems of Executive Authorities. Research report (part 2, interim)]. M., 2017. No. GR0740-2014-0011. Inv. No. 6. 13 р.
10. Malkanduyev Kh.A., Malkanduyevа A.Kh., Shamurzaev R.I. *Sozdat' novyye genotipy zernovykh kul'tur s uluchshennymi slozhnymi ekonomicheski znachimymi svoystvami (produktivnost', kachestvo), povyshennoy ustoychivost'yu k bio- i abiofaktoram sredy* [To create new cereal genotypes with improved complex economically significant properties (productivity, quality), increased resistance to bio- and abiofactors of the environment] // *FGANU «Tsentr informatsionnykh tekhnologiy i sistem organov ispolnitel'noy vlasti» Otchet o NIR (chast' 2, promezhutochnyy).* [Center for Information Technologies and Systems of Executive Authorities]. Research report (part 2, interim). M. 2018. No GR0740-2014-0011. Inv. No. 6. 13 р.
11. *Patent 10550, Rossiyskaya Federatsiya, selektsionnoye dostizheniye tritikale ozimaya Bereket, S1* [Patent 10550, Russian Federation, breeding achievement of winter triticale Bereket, C1] / Malkanduev Kh.A., Malkanduyev A.Kh., Shamurzaev R.I., Romanenko A.A., Bespalova L.A., Kovtunenko V.Ya ., Mokhova L.M., Panchenko V.V., Kalmysh A.P.; applicants: 25, 19620; Application No. 8354648 dated 12/30/2015; published March 12, 2019, bulletin No. 4 (244), part IV, t. IV. 5. 257 р.