The use of Tartary buckwheat in gastronomy – development and trends


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HISTORY IN SLOVENIA

COMMON BUCKWHEAT
1426 – first mentioned
*Find in history book: Gornjegrajski urbarji*

TARTARY BUCKWHEAT
1812-1815 – the first time in Slovenia
*Žiga Zois* („cojzla“)
In the Slovenian cuisine there can be found a variety of traditional dishes made of common buckwheat (buckwheat ‘’žganci’’, buckwheat groats, ‘’štruklji’’, a buckwheat pocket, buckwheat bread).

For making bread and cakes it is used a mixture of common buckwheat and wheat flour in order to achieve better rheological properties of dough, because buckwheat contains no gluten.
TRADITIONAL BUCKWHEAT FOOD IN SLOVENIA

1. buckwheat “žganci”,
2. buckwheat groats
3. buckwheat bread,
4. “zlevanka” in region Prekmurje,
5. buckwheat „štruklji”
Tartary buckwheat is less known, although it was grown in Slovenia in the past, but in the last fifty years it has been almost forgotten.

In cookbooks in Slovenia and also in cookbooks in Europe there is almost impossible to find recepies for food products or dishes from Tartary buckwheat.
COMMON BUCKWHEAT (left) and TARATRY BUCKWHEAT (right)
Tartary buckwheat

Common buckwheat
Development of Tartary buckwheat products

- At the EC Piramida Maribor we have developed more than **100 different products and dishes from Tartary buckwheat** in last 5 years.
- The product development was carried out in cooperation with Slovenian Tartary buckwheat producer and miller **Anton Ragus**.
- We observed and studied the **characteristics** of the different sort of **dough** from the Tartary buckwheat flour and a mixture of Tartary buckwheat and wheat flour.
We developed several technological processes in production of bread, cakes, confectionary products, and pasta.

Technologically suitable are mixtures of 30-50% of Tartary buckwheat (with wheat flour), although possible is also a higher part of buckwheat flour.
1. TARTARY BUCKWHEAT BAKERY PRODUCTS
2. TARTARY BUCKWHEAT CONFECTIONARY PRODUCTS
3. GLUTEN-FREE TB PRODUCTS
4. CONCLUSIONS
1. Tartary buckwheat bread
   (30-50 % TB)
TARTARY BUCKWHEAT BREAD

Tartary buckwheat flour 50% → 80%
Tartary buckwheat bread – different production technologies

Sour dough

Mineral water

Without aditives

Baking powder or powder of the cream of tartar
Opportunities in gastronomy

Colorfull buckwheat bread
Opportunities in bakery production
Milk yeast dough
TB 50%
TB pizza (50%)
Tartary buckwheat sticks with roasted groats 50% TB
Tartary buckwheat sticks with sesame seeds 50% TB
Tartary buckwheat bretzels with salt 50% TB
2. Confectionary products from Tartary buckwheat

Equal proportions of flour mixtures were used in the confectionery production of puff pastry (for rolls, cream cakes, etc.) and leavened sweet milk dough for „potica“ (nut-roll).
"Potica" from Tartary buckwheat flour 50%
Sweet leaf yeast dough
50% TB
Different buckwheat cakes
50% TB
Muffins from TB – with pears
Slovenian traditional fragile fritters “FLANCATI” (fried in hot plant oil) 75% TB
Small doughnuts from Tartary buckwheat flour - 50%TB
Salted leaf dough with cheese, ham, poppy seeds, sesame seeds,...

50% Tartary buckwheat flour
Tartary buckwheat products from leaf yeast dough with different vegetables
50% TB
“Štruklji” (dumplings) from Tartary buckwheat flour (50%)
Opportunities in gastronomy
Pancakes – with vegetables or fruit and chocolate (salted or sweet)
PASTA FROM TARTARY BUCKWHEAT FLOUR (50-75% TB)

Preparation of buckwheat pasta is simple when using a mixture of Tartary buckwheat and wheat flour in the ratio of 1:1.
3. GLUTEN-FREE PRODUCTS

- The demand for gluten-free products is increasing.

- We researched which products from 100% Tartary buckwheat have good organoleptic properties.
GLUTEN-FREE CONFECTIONARY PRODUCTS

Here are products of brittle and honey dough (various buckwheat biscuits, gingerbread). We can make Tartary buckwheat biscuits and pies as a gluten-free product.
“Brizganci” - common and Tartary buckwheat 100% buckwheat flour
Temperature of heating and time of baking are important for color.

CB and TB chess biscuits
Shortcrust biscuits - 100% buckwheat flour
Gingerbread (honey biscuits) 100 %TB
Tartary buckwheat apple cake
100% TB
Much more difficult it is to use Tartary buckwheat as the only flour for bread and other products made of leavened dough.

Technologies in this direction have been explored and we have searched for appropriate solutions.
GLUTEN-FREE PRODUCTS WITH GROATS

After cooking in boiling water

- Tartary buckwheat groats
- Common buckwheat groats
- Millet groats
In patisserie

Vanilla cream with cooked TB groats, strawberries, sweet cream, chocolate (gluten-free)
Patisserie

Tartary buckwheat groats with fruit (apples, pears, peaches), yogurt, honey, spices (gluten-free)
Tartary buckwheat “kaša”
Groats dish from Slovenia
(gluten-free)
Mixture (buckwheat and millet groats) with figs (gluten-free)
TB GROATS with cottage cheese, sour cream, eggs, sugar and fruit (gluten-free)
BAKED TRIS – 3 different types of groats (Tartary and common buckwheat, millet) + 3 different kinds of fruit (GLUTEN-FREE)
ICE CREAM WITH TARTARY BUCKWHEAT GROATS
Pralines with roasted Tartary buckwheat flour and caramel
Pralines with roasted Tartary buckwheat groats and TB flour
Buckwheat sausages

In Slovenia we also produce traditional sausages with buckwheat groats, where Tartary buckwheat can be also used instead of traditionally used common buckwheat groats. These are all gluten-free products.
Tartary buckwheat products – for journalists

School events
Colaboration with Clinical hospital in Maribor

School events
School events

Students are involved in promoting Tartary buckwheat products.
CONCLUSIONS

- A lot of opportunities for developing TB products.
- Promoting and marketing is important.
- More instructions for use must be given.
- High price of TB is disadvantage.

- For Tartary buckwheat it is typical a slightly bitter taste, which may be distracting to the consumer.
- In preparation procedures one can partially overcome it by the addition of additives (e.g. spices, herbs, etc.).
- But the best way is to get used to it and become completely fond of Tartary buckwheat.
Thank you!

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