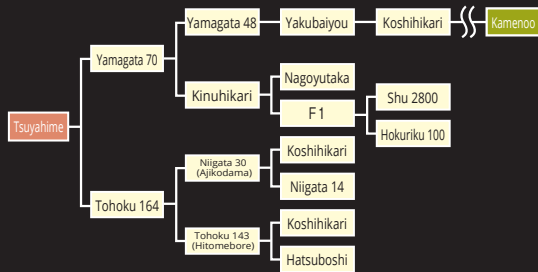


Earned "Special A" grade for 13 consecutive years since its debut (as of 2022).
Yamagata's rice brand



Four strict standards prove that "Tsuyahime" is a special rice

- **Suitable region for cultivation:** We have established a "Map of Suitable Cultivation Areas" and cultivate in "optimal" and "suitable" areas selected on the basis of weather and geographical conditions. In 2022, 9,900 hectares (equivalent to about 19% of the prefecture's total area) were under rice cultivation.
- **Producer certification:** Grown by a limited number of producers, who are certified by the Branding Strategy Promotion Headquarters. The Committee for the Certification of Tsuyahime Producers evaluates the cultivation conditions and cultivation performance of growers who wish to grow the variety, and certified 4,871 growers for the 2022 crop year.
- **Cultivation criteria:** We are working on a safe and secure cultivation system by limiting our cultivation standards to organic rice, specially cultivated rice, etc.
- **Quality Standards:** We have installed taste meters in all JAs and have established quality standards based on protein values throughout the prefecture.

Gross protein content of brown rice based on shipping standards

15% wet equivalent ----- Not more than 6.4%
Dry matter equivalent----Not more than 7.5%
(Confirmed by taste analyzer)

Tsuyahime has excellent cooking gloss and whiteness

Tsuyahime is highly rated for its cooked luster, appearance, and taste.

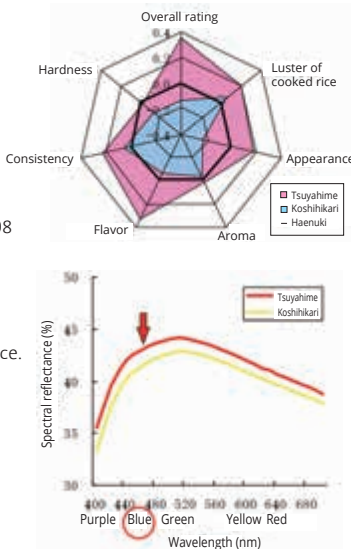
Figure 1: Average results of sensory evaluation of eating quality of Tsuyahime

Conducted at the Yamagata Prefectural Agricultural Research Center's Paddy Field Agricultural Experiment Station.
Cultivation Area Productivity Test 2002-2008
Standard: "Haenuki" produced in the cultivation area. (Scale: 0.0)

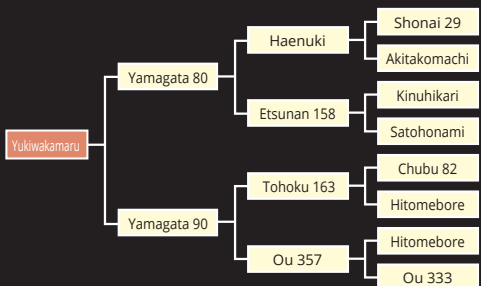
The whiteness of Tsuyahime is due to the high reflectance of each wavelength, especially the high blue spectral reflectance.

Figure 2: Spectral reflectance of cooked rice

The test materials were obtained under the same growing conditions.
The rice was prepared at a milling ratio of 90%. All the test varieties were grown in Yamagata Prefecture.



A new firm and tasty texture
Vigorous rice is born from Yamagata!



Genealogy and growth

- It is a medium-late variety in Yamagata Prefecture, with both emergence and maturity on par with Haenuki.
- It has short culms, strong resistance to falling, and is easy to grow. It is as suitable for direct sowing as Haenuki.
- This rice has "high" ear blast field resistance, "slightly high" cold tolerance, and "slightly high" high temperature tolerance.

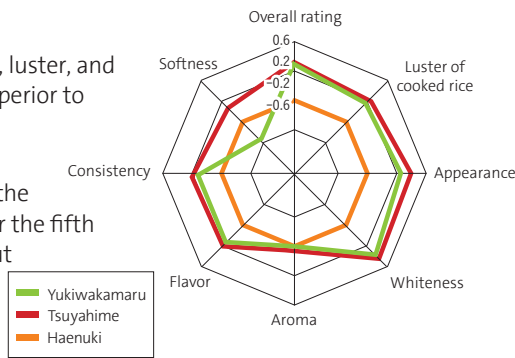
Yukiwakamaru production volume

	Cropped area	Production plan
2022 production	4,000ha	Approx. 23,800t
2023 production	4,500ha	Approx. 26,700t



Flavor

- The whiteness, appearance, luster, and taste of this cooked rice are superior to those of "Haenuki" rice.
- The 2022 harvest of "Yukiwakamaru" rice received the highest rating of "Special A" for the fifth consecutive year since its debut in the rice flavor rankings.

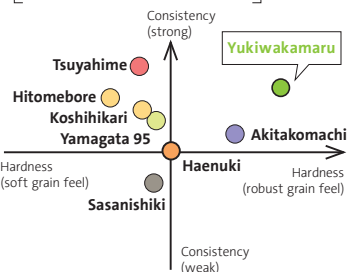


Texture

- Compared to varieties produced in Yamagata Prefecture, the balance between consistency and hardness (firm grain texture) is a new mouth feel never before seen in rice.
- The same trend is observed when compared to brand-name varieties produced in other prefectures.

Comparison with varieties produced in the prefecture

Yamagata Prefecture Paddy Field Agricultural Testing Center
Institute Center
Brand-name varieties from other prefectures are purchased from metropolitan rice stores (2016)



Comparison with brand varieties produced in other prefectures

Prefectural products are from the Agricultural Research Institute Center
Brand-name varieties from other prefectures are purchased from metropolitan rice stores (2016)

