For readers more used to hectare-based international reporting, the conversion of registered yields also helps put Zhongzu 100 into perspective. The two-year average regional-trial yield of 567.9 kg per mu is equivalent to roughly 8.52 t/ha, and the production-trial yield of 558.8 kg per mu is about 8.38 t/ha. These are respectable values for an early conventional indica cultivar in a provincial evaluation context. They do not justify any exaggerated "record-breaking" description, but they do support the view that Zhongzu 100 is a genuinely high-yielding type within its agronomic class.

3.5 Evaluation of high-yield and stable-yield performance

The most reliable official yield evidence for Zhongzu 100 comes from the Zhejiang early-indica regional and production trials. In 2018, the variety yielded 577.1 kg per mu, 3.3% higher than Zhongzao 39, but the gain did not reach statistical significance. In 2019, it yielded 558.7 kg per mu, 4.0% above the same control, again without significance. Across the two years, the average was 567.9 kg per mu, 3.7% above Zhongzao 39. In the 2019 production trial, the mean yield reached 558.8 kg per mu, 8.3% higher than the control. These numbers tell a nuanced story: the registration data support a real and consistent yield advantage, but they do not support careless claims of dramatic superiority in all comparisons.

This nuance is precisely why Zhongzu 100 should be described as a stable-yielding rather than sensational variety. In breeding and extension, non-significant but repeated yield advantages still matter, especially when they are accompanied by good field order, maturity fit, and practical seed-industry support. The stronger increase observed in the production trial is also instructive. Production trials often better reflect more realistic cultivation conditions and broader management packages. The larger gain there suggests that Zhongzu 100 may express its value more clearly under practical production than under the stricter variance of regional testing alone. That interpretation should remain cautious, but it is reasonable (Peng et al., 2009).

In short, Zhongzu 100's high-yield identity is credible, but its credibility depends on honest wording. It is not a miracle cultivar that overwhelms the control by enormous margins. It is a productive early-rice variety with a repeatable mean advantage, a balanced yield-component structure, and a phenotype that seems suited to orderly field production. For growers and seed companies, that may be more useful than a more volatile high-peak type. Stability, after all, is often what converts a good candidate into a sellable variety.

4 Grain Quality Characteristics and Stress Resistance Performance of Zhongzu 100

4.1 Milling quality characteristics

According to the official rice quality tests conducted in 2018–2019 in Hangzhou, Zhongzu 100 had an average head milled rice rate of 52.9%. This figure places the variety in a workable but not outstanding category from a post-harvest processing perspective. Milling quality matters because it influences both market return and processing efficiency. Even a productive field variety can lose value if too much grain is broken or downgraded in milling. In that sense, the recorded milling performance of Zhongzu 100 supports its role as a usable production cultivar, but it does not place it in the top tier of premium-milling rice types (Custodio et al., 2019).

This is consistent with the broader identity of the variety. Everything in the dossier suggests that Zhongzu 100 was bred mainly for agronomic practicality rather than premium niche quality. That is not a criticism. In many early-rice production systems, especially where the primary goal is timely output and cropping continuity, acceptable milling quality is enough. A variety does not need elite quality to be valuable if it performs well in the field, fits the seasonal window, and produces grain that can move reliably through normal processing channels. Zhongzu 100 appears to meet that standard, even if it is not designed as a processing-quality flagship (Fitzgerald et al., 2009).

4.2 Appearance quality and eating quality

The appearance-quality profile of Zhongzu 100 is more mixed. Official testing recorded a length-to-width ratio of 2.4, a chalky grain rate of 65.5%, chalkiness of 11.4%, transparency of grade 3.5, gel consistency of 56 mm, and amylose content of 25.3%. The two-year comprehensive assessment placed the variety in the general edible-rice