



## Biochemical characterization and grain quality evaluation of some aromatic rice varieties/lines for food security

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**Abstract :** Aromatic rices are preferred by consumers all over the world due to its flavour and palatability. A large number of these collections are available but there is still scope for systemic analysis on grain quality and genetic divergence front. India possesses an immense wealth of Basmati and non Basmati aromatic rice varieties and land races exhibiting a wide variability in their grain quality and cooking characteristics. In present study forty varieties/lines of Basmati and non Basmati aromatic rices were evaluated for their physical and quality characteristics. Among all quality characteristics aroma was considered as most important quality parameter of high quality rice. In our study aroma ranged from very low to strong. The gelatinizing temperature ranged from low to high intermediate category. This was indirectly decided by alkali digestion score which ranged from 7.0 to 2.0. Cooked kernel length, cooked kernel breadth, elongation ratio, gel consistency and amylose content were also recorded. Various grain quality parameters of these varieties/lines were compared to premium Dehradun basmati 3020. Based on this study it was revealed that besides Basmati rice other non Basmati aromatic rice varieties should also promoted by scientists and adopted by more and more farmers and traders so the consumers can get better aromatic rice at lower cost and simultaneously we can maintain our traditional non basmati aromatic rice germ plasm.

**Key Words :** Grain quality, Aromatic rice, Elongation ratio, Amylose content, Alkali digestion score

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