

**PC-26**

**What is an Appropriate Promotion Strategy for Korean Wheat Consumption?  
- Find Out in the Sensory Evaluation of Rice Meal Versus Rice Containing Wheat Meal by  
Age Groups-**

Kyunsik Lee<sup>1\*\*</sup>, Sehwa Lim<sup>1</sup>, Kyeonghoon Kim<sup>2\*</sup>, Jinhee Park<sup>2</sup>

<sup>1</sup>Division of Farm & Management, Rural Development Administration, Jeonju, Korea

<sup>2</sup>Division of Wheat Research, National Institute of Crop Science, Jeonju, Korea

**[Abstract]**

Wheat was brought to solve food scarcity with aid from the United States caused by the Korean War. The Korean government launched a campaign to encourage mixed rice and wheat meals due to shortage of rice production in the 1960s, Wheat consumption began in earnest. However, it is difficult to rebuild the domestic wheat production base devastated by the Korean War with the technology at the time. Thus, wheat was mainly consumed from imported in the past. Since then, as wheat consumption has increased due to westernization and diversification of dietary life, wheat became the second staple grain in Korea. In this situation, the government enacted the Wheat Industry Promotion Act to create a basis for sustainable production and consumption of wheat in Korea. This study sought to improve the self-sufficiency of domestic wheat by examining the possibility of using “Ariheuk”, a variety of new Korean wheat, as a rice supplement in the same context as the government’s policy. Wheat has been used as a raw material for the processed food, such as noodles and bread. However, we approached it by using whole wheat as a nutritional grain. Participants were recruited from the agri-food consumer panel conducted by Rural Development Administration. We set a final sample of 525 consumer panels based on the age of census household heads. The experiment was conducted in such a way that participants cooked and ate 100% rice meal and rice containing 20% whole wheat meal. Participants completed the sensory evaluation questionnaire with online. For this experiment, all participants were given same whole wheat product. The sensory evaluation questionnaire consisted of color, glossiness, stickiness, aroma, chewing, sweetness, nuttiness, chewiness, softness, bursting, flavor, texture and swallowability. The sensory evaluation results were analyzed by giving -3 points to +3 points. The former points were given to the response that 100% rice meal is very superior to the response that rice containing 20% whole wheat meal. The latter points were given vice versa. Zero point was given to the response that they are similar each other. As a result, rice with 20% whole wheat meal was better than 100% rice meal in terms of color, aroma, chewiness, bursting and flavor. In case of sweetness and glossiness, there didn’t exist significantly different. On the other hands, 100% rice meal was better in terms of softness and swallowability. As a result of ANOVA by age groups, from 30s or younger to 60s or more, there was significant difference among the groups in terms of color, chewiness and bursting. As a result of post-hoc analysis with Duncan’s multiple range test ( $p < 0.05$ ), 50s were evaluated to be significantly superior in color, chewiness and bursting compared to other age groups. In conclusion, it is appropriate to use whole wheat as a supplement to rice in order to improve the self-sufficiency of domestic wheat. As a strategy to promote domestic wheat consumption, in case of Ariheuk, it is necessary to provide an experience through whole wheat tasting and to establish a marketing strategy segmented by age groups.

**Keywords :** Ariheuk, Consumer Panel Survey (RDA), Sensitivity evaluation, Promotion of Korean Wheat Consumption

**[Acknowledgement]**

This study was supported by Agricultural Technology Management Research (PJ016746) funded by the Rural Development Administration.

\*Corresponding author: E-mail, k2h0331@korea.kr Tel, +82-63-238-5457

\*\*First author: Email, lilycard@korea.kr Tel, +82-63-238-1193