

Study on the Quality of the Commercial Brand Rices in Jeonbuk

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Objectives

This study was conducted to improve the image of commercial brand rices in Jeonbuk through investigating the quality of rice by period and comparing the quality of the commercial brand rices in Jeonbuk with being the commercial high-quality brand rices preferred by consumer from countrywide.

Materials and Methods

- Materials : total 43 commercial brand rices
 - 33 commercial brand rices in Jeonbuk
 - 10 commercial high-quality brand rices preferred by consumer from countrywide : produced in different regions
- Methods
 - Quality of rice was investigated by three months
 - Contents of rice quality
 - Contents of protein, amylose, moisture(%) : AN-700(Kett, Japan)
 - Ratio of head rice(%) : RN-500(Kett, Japan)
 - Mechanical taste value : MA-90 system(Toyo, Japan)

Results and Discussion

- Comparing the ratio of head rice of high-quality commercial brand rices in Jeonbuk with different production regions were not significantly different, but significantly different from that of commercial brand rices in Jeonbuk.
- The mechanical taste values of high-quality commercial brand rices also showed a same tendency to the ratio of head rice of high-quality commercial brand rices in Jeonbuk.
- The contents of protein, moisture, amylose rice were not significantly different among each samples.
- The quality of high-quality commercial brand rices in Jeonbuk was as good as that of different production regions and had little changed it by investigating period.

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Table 1. Comparison the ratio of head rice of commercial brand rices in Jeonbuk with commercial high-quality brand rices in different production regions.

unit : %

| Period | HQBRJ | HQBRD | BRJ |
|----------|----------------------|-------------------|-------------------|
| January | 94.1 | 93.7 | 88.6 |
| April | 95.2 | 94.7 | 89.7 |
| July | 95.1 | 93.4 | 89.3 |
| October | 96.0 | 94.9 | 93.2 |
| Average. | 95.1 ^{a 1)} | 94.2 ^a | 90.2 ^b |

* HQBRJ : High-Quality Brand Rices in Jeonbuk

HQBRD : High-Quality Brand Rices in Different production region

BRJ : Brand Rices in Jeonbuk

¹⁾: Significant at 5% level by L.S.D.

Table 2. Comparison the mechanical taste value of commercial brand rices in Jeonbuk with commercial high-quality brand rices in different production regions.

| Period | HQBRJ | HQBRD | BRJ |
|----------|-------------------|-------------------|-------------------|
| January | 76.5 | 75.2 | 69.9 |
| April | 74.6 | 72.8 | 68.6 |
| July | 74.9 | 72.8 | 68.6 |
| October | 75.8 | 74.2 | 71.3 |
| Average. | 75.5 ^a | 73.8 ^a | 69.6 ^b |

Table 3. Comparison the major chemical properties of commercial brand rices in Jeonbuk with commercial high-quality brand rices in different production regions.

unit : %

| Properties | Protein | | | Moisture | | | Amylose | | |
|------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | HQBRJ | HQBRD | BRJ | HQBRJ | HQBRD | BRJ | HQBRJ | HQBRD | BRJ |
| Avg. | 6.2 ^a | 6.1 ^a | 6.4 ^a | 14.9 ^a | 14.7 ^a | 14.5 ^a | 19.1 ^a | 19.1 ^a | 18.9 ^a |
| Max. | 6.5 | 6.5 | 6.9 | 15.6 | 15.6 | 15.7 | 19.4 | 19.4 | 19.3 |
| Min. | 5.9 | 5.7 | 5.9 | 14.0 | 13.5 | 13.2 | 18.8 | 18.8 | 18.5 |