

Annotation

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Evaluation of chicory root selection numbers by the chemical composition in the process of storage

The article is present the results of the evaluation of Chicory Root selection numbers by the chemical composition in the process of storage. There is the tendency of gradual reduction of dry matter for all variants on average of the research years are noted. During the first storage period (end of October - beginning of February) this indicator is decreased in roots with elongated form. In the second period, until the end of storage period (mid-April) were observed a similar situation. Chicory Root varietal samples with cylindrical and conical forms in the second storage period (beginning of February - mid April) almost did not change, and dry weight reducing was observed only on 0.4 and 0.3% respectively.

A result of researches by the content of reconstructive-regenerative sugars of Chicory Root varietal samples with elongated form is exceed varietal samples with cylindrical and conical forms, respectively, on 0.57 and 0.44%. In the period of roots storage is observed the same tendency as with dry matter index to the gradual reduction of reconstructive-regenerative sugars. Only in the selection numbers with elongated form roots, in the second period there is a significant reduction of reconstructive-regenerative sugars up to 0.77%.

On average of research years the lower inulin content, during root storage, seen in variants with elongated form of root, which was 11,9-12,1% to weight of raw material, while the high content of inulin is observed in selection numbers with conical form - 15,3- 15,5% to weight of raw material. Selection numbers with cylindrical form have intermediate indicators of inulin content, and on average of research years, during of roots storage is ranged from 13.6 to 13.9% to weight of raw material. During roots storage by the inulin content is showed the tendency to its increase in all variants. Perhaps this is due to the reduction of uterine roots dry matters and restoring sugars.

In selection numbers during the storage the basic studied features are varied – by the content of dry matter from 26.0% to 31.0%, polysaccharide inulin keeping from 11.9% to 15.5%; reconstructive-regenerative sugar content from 13.6% to 18.1% to weight of raw material. Holding of selections by these features in subsequent generations will receive the individual variability, accumulate the valuable properties and increase the efficiency of selection work

Key words: *Chicory Root, selection numbers, root form, storage, dry matter, restoring sugar, inulin.*