

INNOVATION FUND

'SCC-A', UNIQUE CABBAGE LINE WITH HIGH SUGAR CONTENT, SIGNIFICANT YIELD, AND PROCESSING TRAITS

'SCC-A', A SPECIAL LINE OF CABBAGE (*BRASSICA OLERACEA* VAR. CAPITATA SSP. ALBA L), HAS BEEN BRED BY RESEARCHERS AT THE SERBIAN INSTITUTE FOR VEGETABLE CROPS. BEGINNING WITH CROSSES MADE IN 2008, THE LINE HAS BEEN DEVELOPED WITH GENETICS FROM THE INSTITUTE'S CABBAGE GERMPLASM COLLECTION.

- The line has a unique combination of traits that make it commercially attractive for fresh markets and particularly for sauerkraut fermentation. The line is characterized by high sugar and dry matter content, increased yields, a great potential for fermentation during which retains its white color.
- The Institute breeders of the 'Scc-a' line include: dr Sladjan Adzic, dr Suzana Pavlovic, dr Boguljub Zecevic, and dr Zdenka Girek.
- The line has undergone nearly ten years of breeding and selection and is in the final phase of selection to confirm the line's DUS characteristics.
- Scc-a yields is an average 75 t/ha and it is suitable for production at 35,000-40,000 heads per hectare. The average size of the line is: 1.8 kg/head, 17 cm head width, 15 cm head height. The line has a upright rosette that efficiently utilizes solar radiation. The rosette leaves have a particularly long petiole, which is not covered by a leaf, almost one-third, which helps in the late stages of production to counter the effects of slug predation on the head. The average dimensions of the rosette is 82.4 cm height and 75.8 cm width. The number of leaves in the rosette of each plant is in average about 17. The cabbage head is dense and the ratio of head weight to total plant weight is 76%.
- Scc-a' is a mid-to-late season producer. It requires 135 days from sowing to harvest. It shows very good resistance to
 winter weather with 85% of plants surviving hard winter conditions.





- The line exhibits very high sugar content, averaging 9.6% compared to typical cabbage sugar content of 3.8%-4.2%. The line is a very sweet-tasting fresh cabbage and also has excellent fermentation qualities. Scc-a cabbage retains its white color throughout the fermentation process.
- Scc yield is equal to hybrids while the seed production cost is expected to be significantly lower than hybrids.
- During crossing with genetic and geographic divergent genotypes has shown that Scc-a has good combining ability. The line is a good combiner and useful for development of future, valuable lines and varieties.
- The line has been developed with a focus on markets in Serbia, Bulgaria, and Macedonia. However, its' unique characteristics have potential value in other markets.
- The line is undergoing a final season of work to verify that the genotype is morphologically uniform, and to confirm the reliability of the line's high sugar and dry matter content. The new variety should be ready for DUS testing by the end of 2018.





FACTS & FIGURES:



The Institute is searching for a seed company interested in the commercial opportunity of the Scc-cabbage, in evaluating the line and its traits, and then ideally entering into a license agreement for seed distribution in promising markets.

The Institute is hoping that the same company will be interested in other research underway at the Institute and will enter a series of research collaboration agreements for other Institute crops of interest. Since the Institute is also involved in commercial seed production and distribution, creative arrangements with commercial partners for other crops and markets are of interest [http://www.institut-palanka.co.rs/]

If Interested in further information, please contact Mr. John Fraser, Lead Transaction Specialist, the Serbian Innovation Fund, Belgrade Serbia, which represents the Institute in these activities. **Contact: jfraser@burnsidedev.com**