SOYBEAN
(Glycine max)

Proposed denomination: **'S21-C6'**
Application number: 20-10081
Application date: 2020/01/17
Applicant: Syngenta Crop Protection AG, Basel, Switzerland
Agent in Canada: Syngenta Canada Inc., Arva, Ontario
Breeder: David Lee, Syngenta Canada Inc., Arva, Ontario

Variety used for comparison: 'S20-G7'

Summary: *When 95% of the pods are ripe, the plants of 'S21-C6' are shorter than the plants of 'S20-G7'. The pod of 'S21-C6' is light brown whereas the pod of 'S20-G7' is dark brown.*

Description:
PLANT: oilseed type, indeterminate growth type, semi-erect growth habit, grey pubescence on middle third of main stem, begins flowering mid-season, matures mid to late season

HYPOCOTYL: medium anthocyanin colouration

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: light brown
SEED: spherical, yellow ground colour of testa
HILUM: yellow

Origin and Breeding: 'S21-C6' (experimental designation EE1600891) originated from the cross between 12DL000130 and 12D000134 conducted in the winter of 2013 in a contra season nursery in Graneros, Chile. Using a single seed descent method, the F2-F3 generations were grown in Arica, Chile in 2013 and 2014. Single F4 plants were selected for yield based on plant appearance in the winter of 2014 in Graneros, Chile and the resulting F5 generation was evaluated in a single replication trial in Arva, Ontario, Canada in 2015. The F6 and F7 generations were further evaluated in multiple trial locations in Canada and the United States in 2016 and 2017. A bulk increase of 'S21-C6' occurred at the F8 generation in Arva, Ontario, Canada in the summer of 2018. Selection criteria included hilum colour, protein content, and yield.

Tests and Trials: The comparative trials for 'S21-C6' were conducted at Syngenta Canada, Inc., Arva, Ontario in 2021 and 2022. The plots consisted of 2 replicates per variety containing 2 rows per replicate with a row length of 5 metres and a row spacing of 0.76 metres. The planting density resulted in a minimum of 300 plants per variety. The plant height was based on 20 measurements per variety per year. Mean differences were significant at the 5% probability level based on LSD values.

Comparison table for 'S21-C6'

	'S21-C6'	'S20-G7'*
Plant height (cm)		
mean 2021 (LSD=2.74)	91.11	100.55
std. deviation 2021	5.24	4.74
mean 2022 (LSD=2.58)	89.45	98.65
std. deviation 2022	4.97	4.41

*reference variety

Soybean: ‘S21-C6’ (right) with reference variety ‘S20-G7’ (left)