



## APPLICATIONS UNDER EXAMINATION

BEAN

### BEAN

(*Phaseolus vulgaris*)

**Proposed denomination:** 'AFFIRMED'  
**Application number:** 18-9415  
**Application date:** 2018/04/03  
**Applicant:** Seminis Vegetable Seeds, Inc., St. Louis, Missouri, United States of America  
**Agent in Canada:** Bayer CropScience Inc., Ottawa, Ontario  
**Breeder:** Ken Kmiecik, Seminis Vegetable Seeds, Inc., DeForest, Wisconsin, United States of America

**Variety used for comparison:** 'Sybaris'

**Summary:** *The plants of 'AFFIRMED' are shorter than those of 'Sybaris'. The plants of 'AFFIRMED' begin flowering late in the season while those of 'Sybaris' begin flowering mid-season. When the plants are fully flowering, the upper side of the leaf of 'AFFIRMED' is dark green with medium rugosity whereas the leaf of 'Sybaris' is medium green with weak rugosity. The intensity of the green ground colour of the pod of 'AFFIRMED' is strong while it is medium for 'Sybaris'.*

#### Description:

**PLANT:** garden bean type, absent or very weak intensity of anthocyanin colouration of hypocotyl, dwarf and determinate growth type, no guides, 50% of plants begin flowering late season, intermediate attitude of branches

**LEAF:** dark green upper side, medium rugosity

**TERMINAL LEAFLET:** medium sized, quadrangular shaped, medium length tip

**INFLORESCENCE:** predominantly positioned in foliage at full flowering

**FLOWER:** small bracts, white standard, white wing

**POD:** circular in cross-section, medium thickness to width ratio, strong intensity of green ground colour, no secondary colour, no stringiness of ventral suture

**SEED:** medium to high weight, kidney-shaped in longitudinal cross-section, medium degree of curvature, medium elliptic to broad elliptic shape in cross-section, medium width in cross-section, medium length, one colour, mainly white, no secondary colour

**Origin and Breeding:** 'AFFIRMED' (experimental designation FMGC6V1379 and 10-C6-FMG-1379, pre-commercial name SV0579GG) originated from a hand pollinated cross between Seminis proprietary lines 15340803 and 15340808 made in the spring of 2005 in a greenhouse in Filer, Idaho. The breeding work was conducted at Seminis Vegetable Seeds, Inc. breeding stations located in Filer, Idaho and De Forest, Wisconsin, U.S.A. and Melipilla, Chile. In the summer of 2005, five F1 seeds were planted in an open field where F2 seed was harvested as bulk. From the 400 seeds planted in Filer in 2006, 25 single plant selections were made based on plant habit and pod quality. In 2007, 25 F3 seeds were planted and 5 single plants were selected. In the winter of 2008 and 2009, 40 F4 and F6 seeds were grown in Melipilla, Chile and bulk harvested. In the summer of 2008 and 2009, 12 single plants were selected, bulked and harvested from the F5 and F7 seeds and subsequently planted in open fields in Filer, Idaho and De Forest, Wisconsin. In the winter of 2010, 40 F8 seeds were grown in a field in Melipilla, Chile and bulk harvested. F9 seeds were also grown and harvested in Filer, Idaho in 2010. At this stage, selection was based on plant habit, productivity, pod colour and quality and disease resistance. Seeds of the bulked line were used to produce foundation seed under the experimental name FMGC6V1379 which was later changed to SV0579GG.

**Tests and Trials:** The comparative trials for 'AFFIRMED' were conducted in the summer of 2019 and 2020 at the Huron Research Station near Exeter, Ontario. Plots were arranged in a RCB design with 4 replicates and 20 plants per replicate, for a total of 80 plants per variety. The plots were 4.5 square metres with a row spacing of 0.75 metres and a row length of 6 metres. Plants were spaced 7.5cm apart.

**Comparison table for 'AFFIRMED'**

	<b>'AFFIRMED'</b>	<b>'Sybaris'*</b>
<i>Plant height (cm)</i>		
mean 2019	26.7	28.1
std. deviation 2019	1.3	1.4
mean 2020	23.3	26.4
std. deviation 2020	1.9	3.4

\*reference variety



Bean: 'AFFIRMED'



Bean: 'AFFIRMED' (right) with reference variety 'Sybaris' (left)