



APPLICATIONS UNDER EXAMINATION

FABA BEAN

FABA BEAN
(*Vicia faba*)

Proposed denomination: 'Fabelle'
Application number: 18-9422
Application date: 2018/04/27
Applicant: Norddeutsche Pflanzenzücht, Holtsee, Germany
Agent in Canada: DL Seeds Inc., Morden, Manitoba

Varieties used for comparison: 'CDC Fatima' and 'Vertigo'

Summary: *Up to and including the first flowering node, the stem of 'Fabelle' has fewer nodes than the stem of 'Vertigo'. The pod of 'Fabelle' has more seeds than the pod of 'Vertigo'. The black pigment of hilum is absent on the dry seed of 'Fabelle' while it is present on the dry seed of 'CDC Fatima'.*

Description:

PLANT: indeterminate growth type, flowers mid-season

STEM: medium number of nodes up to and including the first flowering node

LEAFLET: dark green to bluish green, maximum width positioned at middle

FLOWER: black melanin spot present on wing, medium extent of anthocyanin colouration on standard

POD: brown black colour at maturity

SEED: elliptical shape of median longitudinal section, beige colour of testa immediately after harvest, black pigmentation of hilum absent

Origin and Breeding: 'Fabelle' originated from the cross made between the varieties 'Lady' and 'Marcel' at the Norddeutsche Pflanzenzücht breeding station in Hohenlieth, Germany in 2001. The variety was developed using the pedigree breeding method with isolation cages to maintain genetic purity. The line was selected and purity confirmed at the F8 generation in 2010. Selection criteria included low vicine and convicine content, straw stiffness, maturity and protein content. In 2012, at the F10 and later generations, 'Fabelle' was trialed in Morden, Manitoba and Edmonton, Alberta and was subsequently trialed in 2014 and 2015 in the Western Canada Faba Bean Cooperative Trials at 10 locations across Western Canada.

Tests and Trials: The comparative trials for 'Fabelle' were conducted at the DL Seeds Research Station in Morden, Manitoba during the 2017 and 2020 growing seasons. In each year, three replicates were planted in a RCB Design for each variety. Plots consisted of 6 rows with a row spacing of 26 cm and 7 to 10 cm inter row spacing. In 2017, the row length was 4 metres resulting in 70 plants per plot and in 2020 the row length was 10 metres resulting in approximately 100 plants per plot. For each variety, measurements were based on a minimum of 100 measurements per year. Mean differences were significant at the 5% probability level based on LSD values.

Comparison table for 'Fabelle'

	'Fabelle'	'CDC Fatima'*	'Vertigo'*
<i>Number of stem nodes (up to and including first flowering node)</i>			
mean 2017 (LSD=0.69)	6.4	6.1	7.5
std. deviation 2017	2.0	2.7	2.7
mean 2020 (LSD=0.60)	5.6	6.9	8.1
std. deviation 2020	1.5	3.1	1.7

<i>Number of seeds per pod</i>			
mean 2017 (LSD=0.24)	3.8	4.0	2.9
std. deviation 2017	1.0	0.9	0.9
mean 2020 (LSD=0.31)	3.7	4.1	3.2
std. deviation 2020	0.9	1.0	1.0

*reference varieties



Fabelle

Faba bean: 'Fabelle'



CDC Fatima

Faba bean: Reference variety 'CDC Fatima'



Vertigo

Faba bean: Reference variety 'Vertigo'