FABA BEAN (Vicia faba)

'Tabasco' **Proposed denomination:** 10-6983 **Application number: Application date:** 2010/05/05

Applicant: Norddeutsche Pflanzenzucht Hans-Georg Lembke KG, Holtsee, Germany

Agent in Canada: DL Seeds Inc., Morden, Manitoba

Breeder: Dietmar Brauer, Norddeutsche Pflanzenzucht Hans-Georg Lembke KG, Holtsee, Germany

Varieties used for comparison: 'Fatima' and 'Snowbird'

Summary: The leaflets of 'Tabasco' are shorter and narrower than those of 'Fatima' and longer than those of 'Snowbird'. The position of maximum width on the leaflets of 'Tabasco' is towards the base whereas it is positioned at the middle on the leaflets of both 'Fatima' and 'Snowbird'. There is no melanin spot on the wing of the flower of 'Tabasco' whereas there is a black melanin spot on the wing of 'Fatima'. The plants of 'Tabasco' are shorter than those of 'Fatima'. The pods of 'Tabasco' are longer than those of 'Fatima' and shorter than those of 'Snowbird'.

Description:

PLANT: indeterminate growth type, flowers and matures mid to late season

STEM: no anthocyanin colouration, medium number of nodes up to and including first flowering node

FOLIAGE: medium to dark green, maximum width of leaflets positioned towards base

FLOWER: melanin spot absent on wing, anthocyanin colouration absent on standard

POD: erect attitude, brown/black colour at maturity

SEED: grey beige colour of testa immediately after harvest

Origin and Breeding: 'Tabasco' (experimental designation NPZ 4-7540) is the result of the cross 'Gloria' x 'Compass' conducted at Hohenleith, Germany in 2001. In 2002, 750 F2 plants were grown in a field plot and 100 tannin free elite plants were selected. In 2003, observation of single plant progenies were conducted at two locations with each selection bulk harvested. Years of line selection, replicated yield trials and multiplication followed. Selection criteria included strong seedling vigour, early flowering, early maturity, high seed yield, good protein content, high standing power and low tannin content.

Tests and Trials: The tests and trials for 'Tabasco' were conducted at the DL Seeds Sunvalley Research Farm in Morden, Manitoba during the summers of 2009 and 2010. Plots consisted of 3 replicates/variety arranged in a RCB design with each replicate consisting of 6 rows, measuring 6.0 metres in length with a row spacing of 17 centimeters. Plots were spaced approximately 0.3 meters apart. Measured characteristics were based on 60 measurements per variety per year.

Comparison table for 'Tabasco'

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'Tabasco'	'Fatima'*	'Snowbird'*		
6.48	7.61	5.45		
0.92	1.14	0.72		
5.897	6.361	5.677		
1.206	1.149	0.903		
3.38	4.33	3.17		
0.52	0.68	0.47		
2.910	3.634	3.015		
0.723	0.724	0.614		
	'Tabasco' 6.48 0.92 5.897 1.206 3.38 0.52 2.910	'Tabasco' 'Fatima'* 6.48 7.61 0.92 1.14 5.897 6.361 1.206 1.149 3.38 4.33 0.52 0.68 2.910 3.634	'Tabasco' 'Fatima'* 'Snowbird'* 6.48 7.61 5.45 0.92 1.14 0.72 5.897 6.361 5.677 1.206 1.149 0.903 3.38 4.33 3.17 0.52 0.68 0.47 2.910 3.634 3.015	



Flower length (cm)			
mean 2009	2.49	2.73	2.64
std. deviation	0.15	0.19	0.14
mean 2010	2.707	2.921	2.619
std. deviation	0.256	0.257	0.215
Plant height (cm)			
mean 2009	80.83	90.50	72.67
std. deviation	6.65	10.64	7.04
mean 2010	77.87	84.18	80.37
std. deviation	6.86	8.61	6.65
Pod length (mm)			
mean 2009	67.61	63.46	72.54
std. deviation	5.34	6.96	5.62
mean 2010	63.52	53.14	64.25
std. deviation	9.20	7.59	8.01
*reference varieties			



Faba bean: 'Tabasco' (centre) with reference varieties 'Snowbird' (left) and 'Fatima' (right)