



APPLICATIONS UNDER EXAMINATION

PEAS

PEAS
(Pisum sativum)

Proposed denomination: 'Argus'
Application number: 09-6629
Application date: 2009/04/23
Applicant: Agriculture & Agri-Food Canada, Lacombe, Alberta
Agent in Canada: Agriculture & Agri-Food Canada, Lacombe, Alberta
Breeder: Deng-jin Bing, Agriculture & Agri-Food Canada, Lacombe, Alberta

Variety used for comparison: 'Agassiz'

Summary: *The waxiness of the upper surface of the stipules of 'Argus' is absent whereas it is medium on 'Agassiz'. Dentation of the stipules of 'Argus' is medium whereas it is weak on 'Agassiz'. The stipules of 'Argus' are shorter than those of 'Agassiz'. Flecking of the stipules of 'Argus' is very sparse whereas it is sparse on 'Agassiz'. There are two flowers per flowering node on 'Argus' whereas there are two to three on 'Agassiz'. The seed of 'Argus' is ovoid whereas it is spherical in 'Agassiz'.*

Description:

PLANT: field type, no stem fasciation, green colour at flowering, no anthocyanin colouration, semi-leafless

STEM: short to medium length vine

LEAF: no waxiness on upper surface, medium dentation

STIPULE: normal development, very weak dentation, rabbit-eared stipules absent, very sparse flecking

FLOWER: blooms mid-season, medium number of flower bearing nodes per stem, two flowers per node, white standard, arched base of standard, pointed apex of upper calyx lobe, medium length peduncle

POD: thickened wall absent, very weak degree of concave curvature, blunt distal part, green when fully swollen, 6 ovules

IMMATURE SEED: medium green

DRY SEED: simple starch grain, yellow cotyledon, black hilum absent, ovoid shaped, absent or very weak wrinkling of cotyledon, no dimpling, medium size, matures mid-season

REACTION TO DISEASE: resistant to powdery mildew (*Erysiphe polygoni*)

Origin and Breeding: 'Argus' (experimental designation MP1846) arose from the cross CDC Mozart/MP1763 made in 2000 at the Agriculture and Agri-Food Research Centre in Morden, Manitoba. The main objectives of the cross were to combine high yield, good lodging resistance and resistance to powdery mildew. The breeding method is pedigree selection in combination with single seed descent.

Tests and Trials: Tests and trials were conducted during the summers of 2008 and 2009 in Morden, Manitoba. The plots consisted of 4 replicates per variety, 5 x 1 meter with 20 cm spacing between rows. The seeding rate was 85 germinating seeds per meter square.

Comparison table for 'Argus'

	'Argus'	'Agassiz'*
<i>Plant height (cm)</i>		
mean	55	57
std. deviation	3.9	4.0
<i>Number of nodes</i>		
mean	19	21
std. deviation	2.5	1.8

<i>Stipule length (mm)</i>		
mean	43	47
std. deviation	4.0	4.0

*reference variety



Peas: 'Argus' (MP1846) (left) with reference variety 'Agassiz' (right)



Peas: 'Argus' (MP1846) (left) with reference variety 'Agassiz' (right)

