



APPLICATIONS UNDER EXAMINATION

HEMP

HEMP
(Cannabis sativa)

Proposed denomination: 'Angie'
Application number: 20-10278
Application date: 2020/07/02
Applicant: Parkland Industrial Hemp Growers, Dauphin, Manitoba
Breeder: John D. Baker, Stirling, Ontario

Varieties used for comparison: 'Nadine' and 'Joey'

Summary: *The plants of 'Angie' are taller than the plants of both reference varieties. The central leaflet of 'Angie' is wider than that of 'Nadine'. The proportion of hermaphrodite plants is low for 'Angie' whereas the proportion is high for 'Joey'. The proportion of female plants is medium for 'Angie' whereas it is low for 'Joey'. The proportion of male plants is medium for 'Angie' whereas it is low for 'Joey'.*

Description:

PLANT: absent or very weak intensity of anthocyanin colouration of crown, low proportion of hermaphrodite plants, medium proportion of female and male plants

COTYLEDON: medium obovate shape, medium green

HYPOCOTYL: weak intensity of anthocyanin colouration

MAIN STEM: medium green, medium thickness, medium to deep grooves, absent or very thin pith in cross section

PETIOLE: absent or very weak to weak intensity of anthocyanin colouration

LEAF: medium intensity of green, predominantly seven leaflets

INFLORESCENCE: absent or very low tetrahydrocannabinols

MALE FLOWER: flowers mid-season, weak anthocyanin colouration.

SEED: light greyish brown, medium amount of marbling

Origin and Breeding: 'Angie' resulted from a cross conducted between the fibre variety 'Petera' and the oilseed variety 'Canda' made in 2011 in Stirling, Ontario. All subsequent generations were grown in Manitoba where selection criteria was based on the dioecious nature of the plant, maturity, yield, cannabidiol content, fibre, and height. The variety was identified in 2016 in Manitoba.

Tests and Trials: The trials for 'Angie' were conducted in Minto, Manitoba during the 2020 and 2021 growing seasons. The trial consisted of 4 replicates per variety organized in a RCB design. Each plot consisted of 4 rows, each measuring approximately 6.5 metres long with 30 cm inter-row spacing. There were approximately 100-200 plants per plot, resulting in approximately 600 plants per variety. Measured characteristics were based on a minimum of 20 measurements per variety. Mean differences were significant at the 5% probability level based on paired Student's t-test.

Comparison table for 'Angie'

	'Angie'	'Nadine'*	'Joey'*
<i>Plant height (cm)</i>			
mean 2020	186	168	171
std. deviation 2020	9.5	11.2	9.7
mean 2021	196	178	178
std. deviation 2021	19.9	15.8	23.0

Central leaflet width (mm)

mean 2020	34.5	31.3	32.4
std. deviation 2020	5.65	3.97	3.87
mean 2021	25.0	22.2	20.6
std. deviation 2021	3.95	4.39	4.39

*reference varieties



Hemp: 'Angie' (left) with reference varieties 'Joey' (centre) and 'Nadine' (right)

Proposed denomination: 'Quida'
Application number: 20-10279
Application date: 2020/07/02
Applicant: Parkland Industrial Hemp Growers, Dauphin, Manitoba
Breeder: John D. Baker, Stirling, Ontario

Varieties used for comparison: 'Nadine' and 'Maureen'

Summary: *The leaf of 'Quida' has less than seven leaflets whereas the leaves of 'Nadine' and 'Maureen' have predominantly seven leaflets. The central leaflet of 'Quida' is wider than that of both reference varieties.*

Description:

PLANT: absent or very weak to weak intensity of anthocyanin colouration of crown, low proportion of hermaphrodite plants, medium proportion of female and male plants

COTYLEDON: broad obovate shape, medium green

HYPOCOTYL: weak intensity of anthocyanin colouration

MAIN STEM: medium green, thin to medium thickness, medium depth grooves, absent or very thin pith in cross section

PETIOLE: absent or very weak to weak intensity of anthocyanin colouration

LEAF: medium intensity of green, less than seven leaflets

INFLORESCENCE: absent or very low tetrahydrocannabinols

MALE FLOWER: flowers early to mid-season, absent or very weak to weak anthocyanin colouration.

SEED: light greyish brown, medium amount of marbling

Origin and Breeding: ‘Quida’ resulted from selections out of a population of the fibre type variety ‘Ida’. The original selections, based on leaf characteristics, occurred in Stirling, Ontario, in 2011. All subsequent generations were grown in Manitoba where further selections were based on criteria for height, internode length, leaf characteristics, and cannabidiol content. The variety was identified at in 2013 and 2014 in Manitoba

Tests and Trials: The trials for ‘Quida’ were conducted in Minto, Manitoba during the 2020 and 2021 growing seasons. The trial consisted of 4 replicates per variety organized in a RCB design. Each plot consisted of 4 rows, each measuring approximately 6.5 metres long with 30 cm inter-row spacing. There were approximately 100-200 plants per plot, resulting in approximately 600 plants per variety. Measured characteristics were based on a minimum of 20 measurements per variety. Mean differences were significant at the 5% probability level based on paired Student’s t-test.

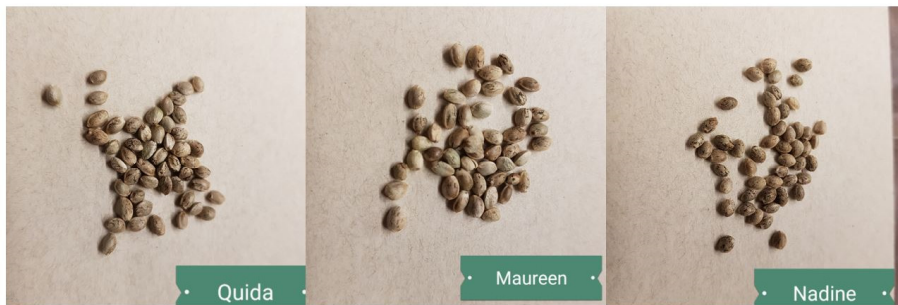
Comparison table for ‘Quida’

	‘Quida’	‘Nadine’*	‘Maureen’*
<i>Central leaflet width (mm)</i>			
mean 2020	98.9	31.1	30.8
std. deviation 2020	4.44	5.02	4.09
mean 2021	85.1	23.2	23.9
std. deviation 2021	13.59	4.29	4.00

*reference varieties



Hemp: ‘Quida’ (right) with reference varieties ‘Nadine’ (left) and ‘Maureen’ (centre)



Hemp: 'Quida' (left) with reference varieties 'Maureen' (centre) and 'Nadine' (Right)
