



HEMP
(Cannabis sativa)

Proposed denomination: 'H92004-1'
Application number: 22-10847
Application date: 2022/03/02
Applicant: Farmer's Business Network Canada Inc., High River, Alberta
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Varieties used for comparison: 'Finola', 'X-59' and 'Katani'

Summary: *During early flower, the central leaflet of 'H92004-1' is longer than that of 'Finola' and shorter than that of 'X-59'. The central leaflet of 'H92004-1' is broader than that of 'Katani'. The plants of 'H92004-1' are taller than the plants of 'Finola'. The female flowers of 'H92004-1' flower mid to late season, while those of 'Finola' flower very early to early in the season, and those of 'X-59' and 'Katani' flower early to mid-season. The male flowers of 'H92004-1' flower mid-season, while those of 'Finola' flower very early in the season, and those of 'X-59' and 'Katani' flower early in the season. The male flowers of 'H92004-1' have a medium to strong intensity of anthocyanin coloration, whereas the male flowers of 'Finola' have an absent or very weak intensity of anthocyanin coloration, the male flowers of 'X-59' have a very weak intensity of anthocyanin colouration, and those of 'Katani' have a very weak to weak intensity of anthocyanin coloration. The seed testa of 'H92004-1' is purple brown whereas the seed testa of 'Finola' is grey brown, that of 'X-59' is medium grey, and that of 'Katani' is light grey.*

Description:

PLANT: seed propagated, dioecious, oilseed, tall at flowering

SEX EXPRESSION: low proportion of hermaphrodite plants, medium proportion of female and male plants

STEM: medium green, thin to medium thickness, shallow depth of grooves, medium pith in cross-section.

PETIOLE: short to medium length, absent or very weak anthocyanin colouration

LEAF: medium number of leaflets, no variegation, medium to dark green

CENTRAL LEAFLET: medium length, medium to broad

INFLORESCENCE: very low THC content, low CBD content

FEMALE FLOWER: flowers mid to late season, absent or weak to medium intensity of anthocyanin colouration

MALE FLOWER: flowers mid-season, medium to strong anthocyanin colouration

STIGMA: medium length and thickness, absent or weak contortion.

SEED: purple brown testa, medium to strong marbling

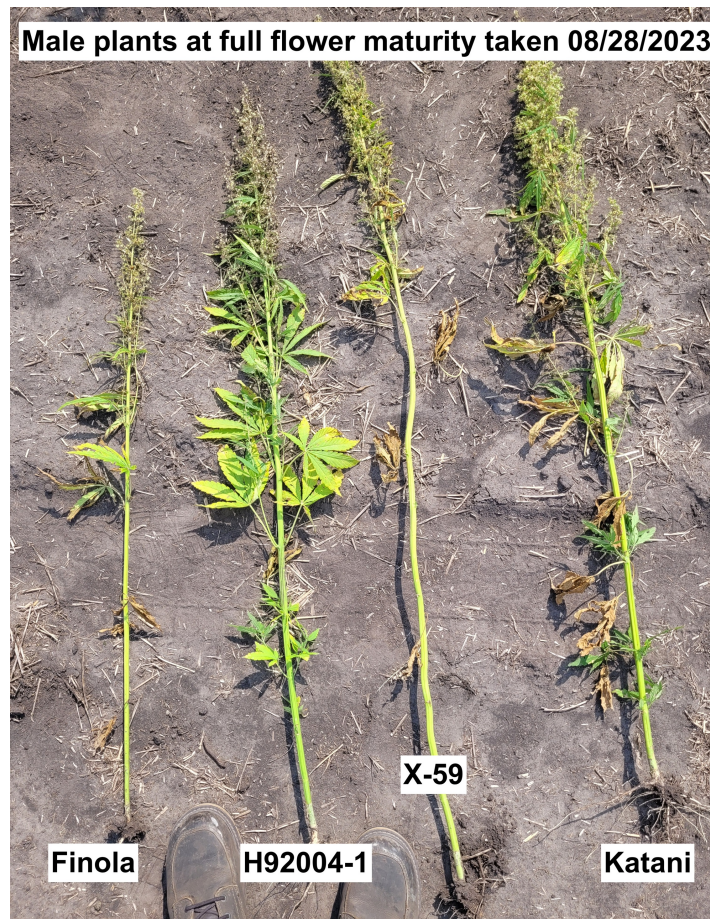
Origin and Breeding: 'H92004-1' was developed from the cross between the varieties 'Purpleliol CBD' and 'Katani' conducted at LaSalle, Manitoba by Haplotech Inc. (acquired by Farmers Business Network Canada) in the spring of 2019. The cross was followed by two generations of full-sib mating with negative selection for maturity, CBD content, and CBD to THC ratio. One hundred seeds were harvested from each of three selected full sib families and bulked to form breeder seed in 2020.

Tests and Trials: The comparative trials of 'H92004-1' were conducted during the 2022 and 2023 growing seasons in Carman, Manitoba. The trials consisted of four replicates in a randomised complete block design with each replicate consisting of 6 rows approximately 6.6 metres long. Each plot was 10 metres squared with a seeding density of 40 seeds per square metre resulting in approximately 1600 plants per variety per year. The measurements were taken from 20 plants, or parts of 20 plants, of each variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

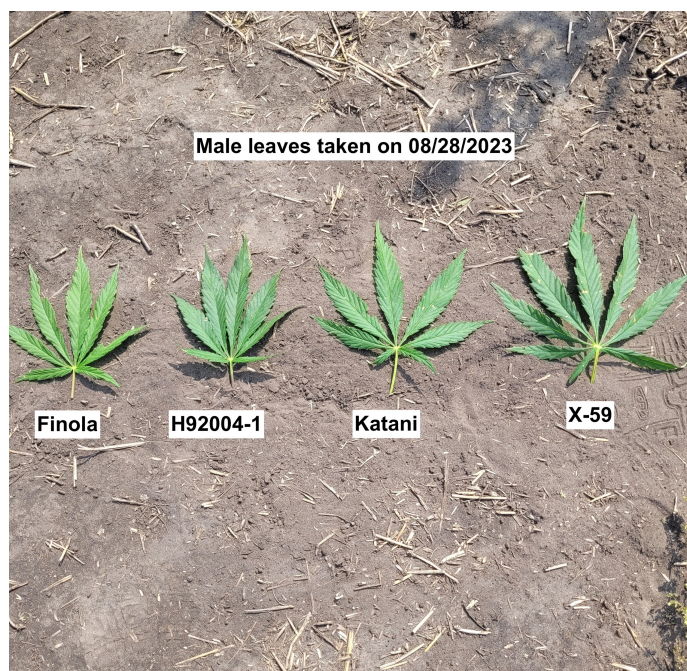
Comparison table for 'H92004-1'

	'H92004-1'	'Finola'*	'X-59'*	'Katani'*
<i>Central leaflet length (on fully developed leaves from middle of plant) (cm)</i>				
mean (2022)	14.65	13.00	17.60	14.65
std. deviation (2022)	1.84	2.03	2.80	2.68
mean (2023)	14.45	12.80	17.25	14.45
std. deviation (2023)	2.09	2.21	2.84	2.54
<i>Central leaflet width (on fully developed leaves from middle of plant) (cm)</i>				
mean (2022)	2.90	2.49	3.35	2.35
std. deviation (2022)	0.73	0.63	0.58	0.46
mean (2023)	2.91	2.33	3.18	2.33
std. deviation (2023)	0.73	0.59	0.73	0.57
<i>Plant height (at flowering) (cm)</i>				
mean (2022)	138.53	100.95	122.95	127.45
std. deviation (2022)	19.25	11.40	19.00	16.76
mean (2023)	137.50	107.75	131.75	128.25
std. deviation (2023)	17.36	17.51	19.42	17.49

*reference varieties



Hemp: 'H92004-1' (centre left) with reference varieties 'Finola' (left), 'X-59' (centre right) and 'Katani' (right)



Hemp: 'H92004-1' (centre left) with reference varieties 'Finola' (left), 'Katani' (centre right) and 'X-59' (right)