

CATMINT (*Nepeta cataria* L) DESCRIPTORS

III CHARACTERIZATION AND EVALUATION DESCRIPTORS

Catmint genetic resources evaluation methodology:

Characterization is done on 2-3 years old plants in full flowering stage. Vegetative propagation by cuttings. Accessions evaluated in 4 replications 5 shoots in each.

Characterization of testing location:

- a. Country of characterization
- b. Institute name and address
- c. Institute site (latitude, longitude, elevation)
- d. Planting date
- e. Harvest date
- f. Plot size
- g. Number of plants per plot
- h. Number of evaluated plants
- i. Place of evaluation – field, greenhouse u.s.w.
- j. Number of replications
- k. Fertilizer (types, doses)
- l. Plant protection

ENVIRONMENT CHARACTERISTIC

- m. Soil type
- n. Relief
- o. Soil pH
- p. Soil organic matter content
- q. Soil texture
- r. Temperature range (growing period mean, maximum, minimum)
- s. Precipitation (sum in growing period)
- t. Frost (date and lowest temperature of most recent frost)

Descriptor code	Number of trait in other descriptors	Descriptor scale	Reference values	Remarks
III/1		Plant height (cm)		
		3 Short 5 Medium 7 High	< 50 50-90 >90	The whole plant from soil to top
III/2		Number of primary branches		
			Appendix, Figure1	
III/3		Length of primary branches (cm)		
				Average of plant primary branches length
III/4		Form-habitus of plant		
		1 Erect 3 Semi-erect 5 Spread	<45° 45-70° >70°	Branching angle between terminal stem and primary branches
III/5		Stem hair on surface *		
		1 Absent 2 Present		
III/6		Number of internodes on main stem		
		3 Low 5 Medium 7 High	Appendix, Figure1	Internodes of main stem from soil to top
III/7		Length of middle internode on main stem (cm)		
III/8		Density of shoot leafiness		
		1 Very sparse 2 Sparse 3 Medium 4 Dense		
III/9		Leaf length (cm)		
		1 Short 3 Medium	<4 4-6	Leaves of middle part of main stem

		5 Lenth	>6	
III/10		Leaf width (cm)		
		1 Narrow	<2	Leaves of middle part of main stem
		3 Medium	2-3	
		5 Broad	>3	
III/11		Leaf shape		
		1 Egg shaped	Appendix, Figure2	Leaves of middle part of main stem
		2 Oblong egg shaped		
		3 Heartshaped		
III/12		Length of leaf petiole (mm)		
		1 Short	<6	
		3 Medium	6-10	
		5 Long	>10	
III/13		Leaf margin		
		1 Toothed	Appendix, Figure3	Leaves of middle part of main stem
		2 Deep toothed		
III/14		Leaf surface of upper side		
		1 Without hairs		Leaves of middle part of main stem Leaf pubescence
		2 Slightly cover by hairs		
		3 Covered by hairs		
III/15		Leaf surface of lower side		
		1 Light pubescence		
		2 Medium pubescence		
		3 Typical pubescence		
III/16		Leaf upper side colour		
		1 Light green		Using RHS Colour Chart or as below
		2 Green		
		3 Grey green		
		4 Grey		
III/17		Leaf lower side		
		1 Grey green		Using RHS Colour Chart or as below
		2 Grey		
		3 Greyish white		

III/18		Length of inflorescence (cm)		
		3 Short 5 Medium 7 Long	<1/2 from plant height 1/2 from plant height >1/2 from plant height Appendix, Figure1	Length of compound inflorescence
III/19		Width of inflorescence (cm)		
				In middle part of compound inflorescence
III/20		Number of blooming branches including top		
III/21		Length of spikes of blooming shoots (cm)		
			Appendix, Figure1	Average length of plant spikes
III.22		Density of floral whorls of blooming shoots		
		1 Very sparse 2 Sparse 3 Medium sparse 4 Medium dense 5 Dense 9 Very dense		
III/23		Floral whorls number of spike		
		1 Difficult to separate 3 Medium 5 Many	5-10 >10	Figure 1
III/24		Colour of flowers		

		1 White 2 Yellow white 3 Lilac white 4 Light lilac 5 Lilac 6 Another		Using RHS Colour Chart or as below
III/25		Calyx		
		1 With slightly hairs 2 With typical hairs	Appendix, Figure 4	

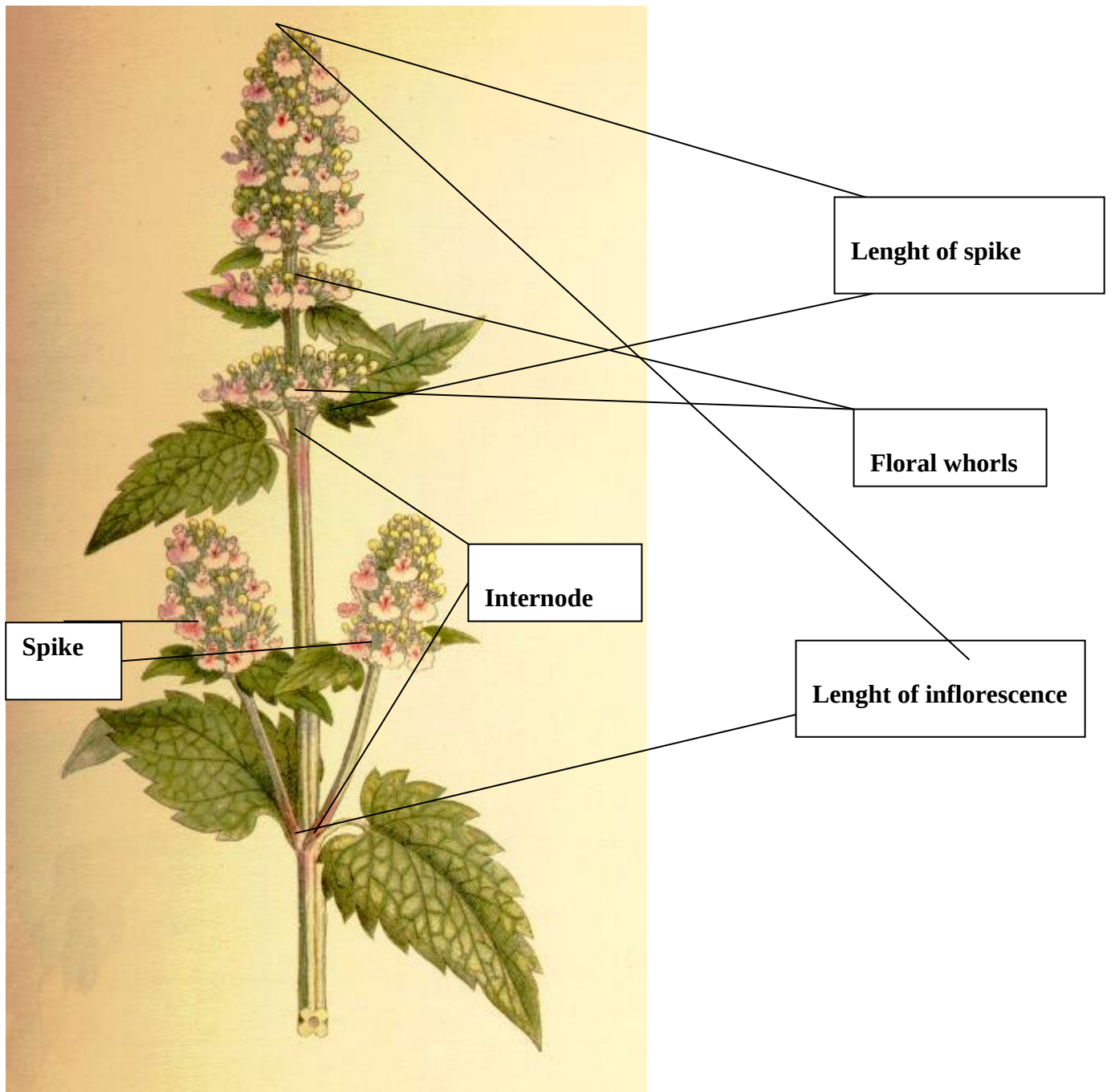
III/26		Length of corolla (mm)		
		1 Short 3 Medium 5 Long	<8 8 >8 Appendix, Figure 4	
III/27		Corolla upper lip		
		1 Slightly hairy 2 Hairy	Appendix, Figure 4	
III/28		Corolla upper lip dotted with spots		
		1 Violet 2 Pink	Appendix, Figure 4	Spots colour
III/29		Corolla upper lip margin		
		1 Slightly toothed 2 Medium toothed 3 Toothed	Appendix, Figure 4	
III/30		Corolla tube with hairs		
		1 Slightly hairs 2 Medium hairs 3 Dense hairs	Appendix, Figure 4	
III/31		Number of calyx veins		
		1 Number of veins 2 Number of veins 3 Number of veins	15 >15 <15	Topical for <i>Nepeta cataria</i>
III/32		Beginning of flowering		
		3 Early 5 Medium 7 Late	Middle of June Start of July Middle of July	
III/33		Weight of 1000 seeds (g)		
III/34		Susceptibility to diseases and pests		
III/35		Total amount of essential oil (%)		

III/36		Compositional characteristics of essential oil (%)		
		Ratio of carvacrol Ratio of citronellal Ratio of geraniol Other biochemical composition		Gas Chromatography
III/37		Notes		
III/38		Cytological characteristics and identified genes		
III/39		Molecular markers		
III/40		Pictures		

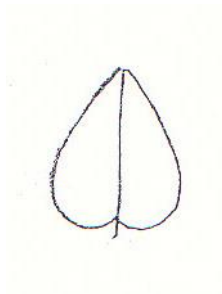
Explanations

* obligatory evaluated traits

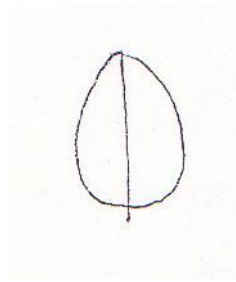
Appendix



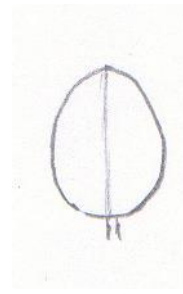
1.figure. Catmint *Nepeta cataria* L



Heartshaped

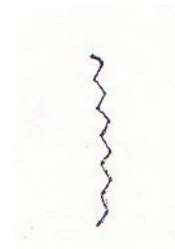


Egg shaped



Oblong egg shaped

Figure 2. Leaf shape



Toothed

Deep toothed

Figure.3 Leaf margin

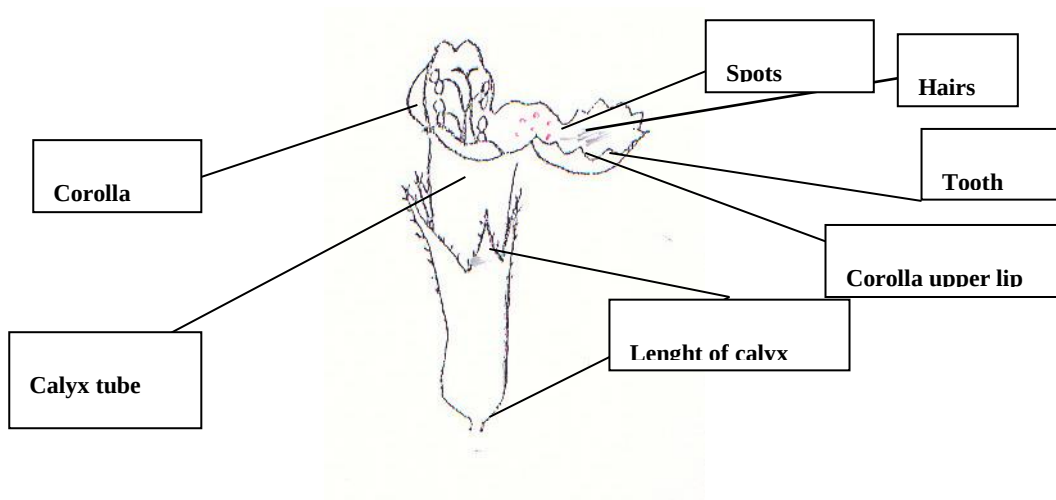


Figure 4 Flower