

Vetch (*Vicia sativa* L.) DESCRIPTORS

III Characterization and evaluation descriptors

Unified methodology for arrangement of pulses trials

Vetch genetic resources evaluation methodology:

Plot size: minimum 5m², at least 3 replications, random plot layout. Seed rate: vetch 100 -120 seeds able to germinate per m². Non-treated seed is used. 3 year average data is transformed to 1-9 scale and used for final evaluation.

Characteristics number	UPOV character number	Note	Character description	Stage of examination
III/1		Seedling: anthocyanin coloration on the base of the stem		
	¹ UPOV 2	1 absent 9 present		The trait should be assessed at vegetative stage
III/2		Seedling: intensity of anthocyanin coloration on the base of the stem		
	UPOV 3	3 weak 5 medium 7 strong		The trait should be assessed at vegetative stage
III/3		Plant: color of foliage		
	UPOV 4	3 light green 5 medium green 7 dark green		The trait should be assessed just before flowering.
III/4		Stem: anthocyanin coloration on leaf axil		
	UPOV 7	1 absent or very weak 3 weak 5 medium 7 strong 9 very strong		The trait should be assessed at vegetative stage
III/5		Stem: hairiness of upper internodes		
	UPOV 6	1 absent 9 present		The trait should be assessed at time of flowering.
III/6		Leaf: shape of tip of leaflet		
	UPOV 8	3 convex 5 straight 7 concave	Figure 1 Appendix	The trait should be assessed at vegetative stage. On middle third of plant.

III/7		Leaf: width of leaflet		
	UPOV 9	3 narrow 5 medium 7 wide	Figure 2 Appendix	The trait should be assessed at time of flowering.
III/8		Time of beginning of flowering.		
	UPOV 5	1 very early 3 early 5 medium 7 late 9 very late		The trait should be assessed at time of beginning of flowering (when 30% of the plants have begun to flower)
III/9		Flower: color of standard		
	UPOV 11	1 white 2 pink 3 light violet 4 medium violet 5 dark violet		The trait should be assessed at time of flowering.
III/10		Pod: length		
	UPOV 13	3 short 5 medium 7 long		The trait should be assessed at maturity
III/11		Pod: width		
	UPOV 14	3 narrow 5 medium 7 wide		The trait should be assessed at maturity
III/12		Pod: hairiness		
	UPOV 12	1 absent or very weak 3 weak 5 medium 7 strong 9 very strong		The trait should be assessed after flowering.
III/13		Pod: length of beak		
	UPOV 15	3 short 5 medium 7 long		The trait should be assessed at maturity

III/14		Pod: number of ovules		
	UPOV 16	3 few 5 medium 7 many		The trait should be assessed at maturity.
III/15		Seed: size		
	UPOV 17	1 very small 3 small 5 medium 7 large 9 very large		The trait should be assessed at maturity
III/16		Seed: shape		
	UPOV 18	1 globose 3 ellipsoid 5 rectangular	Figure 3 Appendix	The trait should be assessed at maturity

III/17		Seed: ground color of testa		
	UPOV 19	1 grey - green 2 grey - brown 3 brown 4 blue - black		The trait should be assessed at maturity
III/18		Seed: brown ornamentation		
	UPOV 20	1 absent 2 diffuse alone 3 pronounced alone 4 partly diffuse and partly pronounced	Figure 4 Appendix	The trait should be assessed at maturity
III/19		Seed: extension of brown ornamentation		
	UPOV 21	1 very small 3 small 5 medium 7 large 9 very large		The trait should be assessed at maturity

III/20		Seed: blue – black ornamentation		
	UPOV 22	1 absent 2 punctuation alone 3 mottling alone 4 punctuation and mottling	Figure 5 Appendix	The trait should be assessed at maturity
III/21		Seed: extension of blue – black ornamentation		
	UPOV 23	1 very small 3 small 5 medium 7 large 9 very large		The trait should be assessed at maturity
III/22		Seed: color of cotyledons		
	UPOV 24	1 grey - brown 2 orange		The trait should be assessed at maturity
III/23		Susceptibility to pulses rust (<i>Uromices ssp.</i>)		
	² SIN	1 very small 3 small 5 medium 7 large 9 very large	5 % 10 % 25 % 50 % > 75 %	The trait should be assessed after flowering. Leaves for 5 plants in each replication should be estimated and mean calculated
III/24		Remarks		
III/25		Molecular markers		
III/26		Cytological characteristics and identified genes		
III/27		Pictures		

Explanations and references

Trait estimation according „, Legume genetic resources evaluation methodology”

¹UPOV – DUS test guidelines, TG/32/6, 21.10.1988

²SIN protocol

References:

Guidlines for the conduct of tests for distinctness, homogeneity and stability. Pulses TG/7/9, 1994-11-04

Appendix



3
convex



5
straight

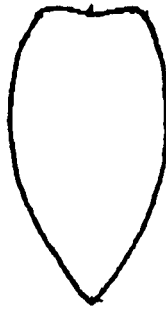


7
concave

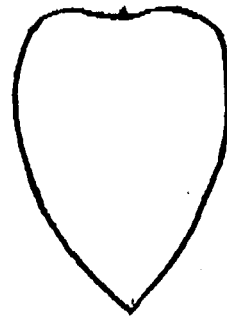
Figure 1 **Leaf: shape of tip of leaflet**



3
narrow

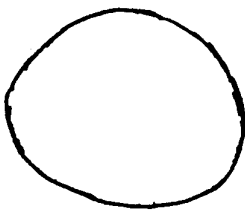


5
medium

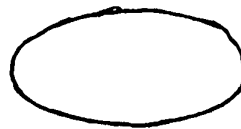


7
wide

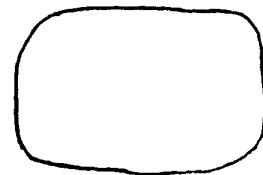
Figure 2 **Leaf: width of leaflet.**



3
globose



5
ellipsoid



7
rectangular

Figure 3 **Seed shape**

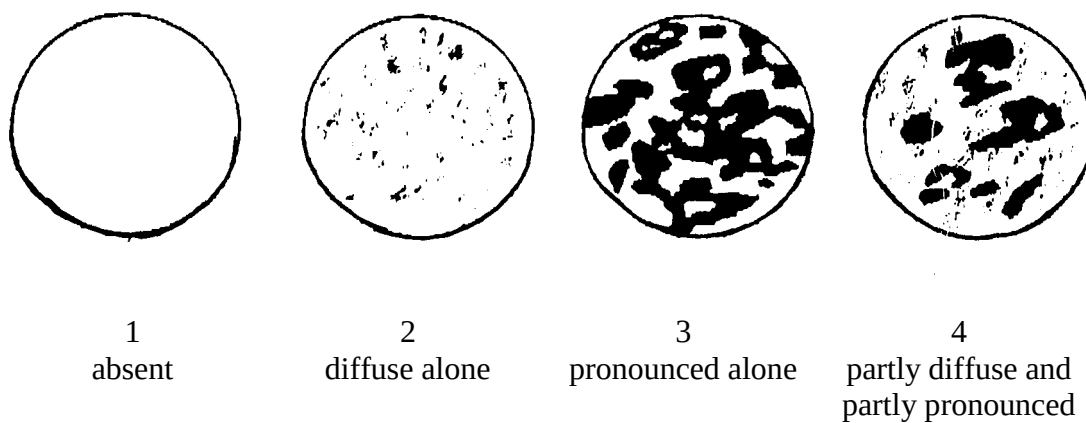


Figure 4 **Seed: brown ornamentation**

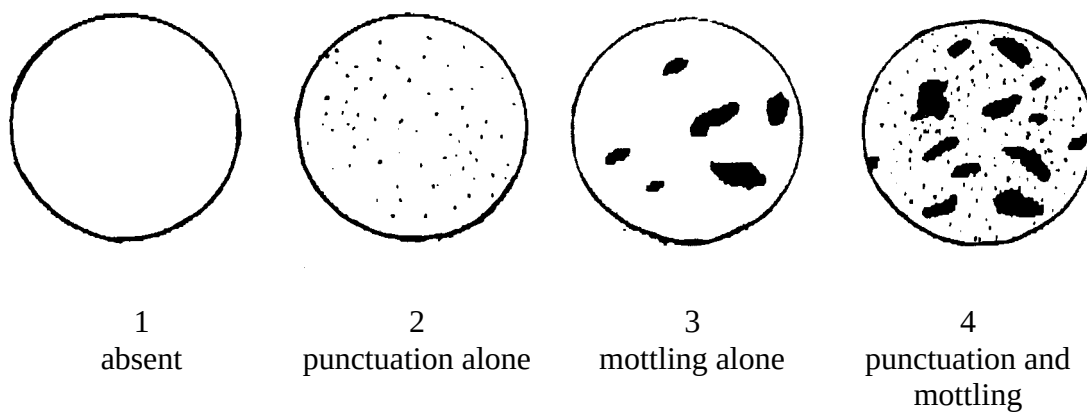


Figure 5 **Seed: blue – black ornamentation**