

ALSIKE CLOVER (*Trifolium hybridum* L.) DESCRIPTORS

III CHARACTERISATION AND EVALUATION DESCRIPTORS

Legumes genetic resources evaluation methodology:

Accessions are sown by hand in the field in spring, without cover culture. Each accession is planted in 2 m long 2 rows. Distance between rows are 60 cm, but between plots 1 m. Each plot is 1 m² large. Minimal replicates number are 2-3, arrangement was random.

Standard cultivars are:

for lucerne – “Skrīveru”;

for alsike clover – “Menta” (2n), “Fricis” (4n);

for red clover – “Skrīveru agrais”, “Stendes vēlais”, “Skrīveru tetra”.

Standard cultivars were included in the common sample evaluation. Accession evaluation time is: sowing year and two next using year – together 3 year.

Nutrition KP was applied in the spring, in next year plots are fertilized whiz complex minerals 200 kg/ha.

Characterization of testing location:

- a. Country of characterization
- b. Institute name and address
- c. Institute site (latitude, longitude, elevation)
- d. Sowing date
- e. Harvest date
- f. Percentage field establishment
- g. Plot size
- h. Number of replications
- i. Plant protection

ENVIRONMENT CHARACTERISTIC

- j. Soil type
- k. Relief
- l. Soil pH
- m. Soil organic matter content
- n. Soil texture
- o. Temperature range (year and/or the seasonal mean, maximum, minimum)
- p. Frost (date and lowest temperature of most recent frost)

Descriptor code	Number of trait in other descriptors	Descriptor Scale (score)	Reference values	Remarks
Characterisation				
III/1	¹ UPOV 1 ² IPGRI 1.6.6.	Ploidy		
		2-diploid 4-tetraploid		
III/2	UPOV 2 IPGRI 4.3.1.	Tendency to form inflorescences in the sowing year		
		1- very low 5- medium 9- very high	flowered some plants flowered 50% of plants practically all plants	Evaluate in the 1 st decade of September all plot (row)
III/3	IPGRI 4.4.1.	Winter damage- first winter		
		1- very little or no damage 5- medium 9- very much damage- plant dead	<10% of plants damage 50% of plants damage >90% of plants damage	Two weeks after beginning vegetation
III/4		Regrow in spring		
		1- slow 5- medium 9- fast		Two weeks after beginning vegetation
III/5	UPOV 3	Plant height at spring time		
		1- very short 3- short 5- medium 7- tall 9- very tall	< 10 cm 10-15 cm 15-20 cm 20-25 cm >25 cm	Two weeks after beginning vegetation
III/6	UPOV 5	Plant color of foliage		
		1- light green 2- green		Two weeks after beginning vegetation

		3- dark green		
III/7	UPOV 4	Plant growth habit at flower bud stage		
		1- very erect 9- prostrate		Estimated all plot
III/8	IPGRI 4.1.1. UPOV 14	Length of central leaflet at flowering		
		1- very short 3- short 5- medium 7- long 9- very long	<2 cm 2-2,7 cm 2,7-3,4 cm 3,4-4,1 cm >4,1 cm	At the flowering time, measure 5 plants
III/9	IPGRI 4.1.2. UPOV 15	Width of central leaflet at flowering		
		1- very narrow 3- narrow 5- medium 7- broad 9- very broad	<1 cm 1-1,7 cm 1,7-2,4 cm 2,4-3,1 cm >3,1 cm	At the flowering time, measure 5 plants
III/10	IPGRI 4.2.2.	Length at flowering including head		
		1- very short 3- short 5- medium 7- long 9- very long	<40 cm 40-57 cm 57-74 cm 74-91 cm >91 cm	At the flowering time, measure 5 plants
III/11	UPOV 11	Stem thickness		
		1- very thin 9- thick		At the flowering time, measure 5 plants
III/12	UPOV 13	Stem hairiness		
		1- without hairiness 2- with hairiness		At the flowering time, measure 5 plants

III/13	IPGRI 4.3.2. UPOV 6	Date of flowering		
		1- very early 9- very late		Date when 50% of plants first show petal colour development on an inflorescence
III/14	UPOV 18	Color of flower		
		1- light white- pink 2- white- pink 3- pink		At the flowering time, measure 5 plants
III/15	IPGRI 4.4.3.	Profuseness of flowering		
		1- sparse 9- very profuse		Scored at full flowering
III/16	UPOV 16	Inflorescence size		
		1- big 9- small		Scored at full flowering
III/17	UPOV 17	Inflorescence density		
		1- very dense 9- sparse		Scored at full flowering
III/18		Density of bush		
		1- very low 9- very high		At the flowering time
III/19	IPGRI 4.4.2.2.	1st cut yield – eye scores		
		1- very low 9- very high		Estimated yield relative to adjusted designated control
III/20	IPGRI 4.4.2.3.	2nd cut yield – eye scores		
		1- very low 9- very high		Estimated yield relative to adjusted designated control
III/21	IPGRI 4.4.2.4.	3rd cut yield – eye scores		
		1- very low 9- very high		Estimated yield relative to adjusted designated control

III/22	IPGRI 4.3.6.	Colour of seed coat		
		1- green 2- bi-colour 3- black		
III/23		Mildew resistance		
		1- very low 3- low 5- medium 7- high 9- very high	90-100% infection 50-90% infection 40%-50% infection 20-40% infection <10% infection	Estimated all plot
III/24		Virus resistance		
		1- very low 3- low 5-medium 7- high 9- very high	90-100% infection 50-90% infection 40%-50% infection 20-40% infection <10% infection	Estimated all plot
III/25		Notes		Any other additional information
III/26		Cytological characteristics and identified genes		
III/27		Molecular markers		
III/28		Pictures		

Explanations and references

¹UPOV – UPOV variety description for Alsike clover ‘Menta’ (20.08.1998.)

²IPGRI – descriptor list for forage legumes (www.ipgri.cgiar.org)

Янсон Ф. И. Клевер розовый. – Москва: Колос, 1968. – 152 с.