

THE DYNAMICS OF THE ALKALOIDS OF *Thermopsis alterniflora*

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It is known from the literature that the epigeal part and seeds of *Thermopsis alterniflora* Regel. et Schmalh. (family Fabaceae) contain alkaloids [1]. However, the quantitative and qualitative composition of the alkaloids in the various organs of this plant, as in other alkaloid-bearing plants, change during its growth and development [2, 3].

We have studied the dynamics of the accumulation of alkaloids in *Th. alterniflora* collected in an early period from a site of its harvesting (environs of the village of Bogustan, Bostanlyskii region, Tashkent oblast). The main mass of thickets of thermopsis located here has been used since 1972. In addition, we analyzed the epigeal part collected in the period of budding and flowering from new large thickets and the shoots of the second growth after the cutting down of the plant in the budding period. The amount of cytisine in the plant was determined by a chromatopolarographic method (Table 1).

It can be seen from Table 1 that the amount of combined alkaloids and of cytisine in the epigeal part of *Th. alterniflora* falls as the plant ages and is practically independent of the annual collections. The raw material can also be harvested in the environs of Yangiabad (UzSSR) and in the Karabau gorge (KazSSR).

TABLE 1

Date of collection (1974)	Growth site	Vegetation period	Height of the plant, cm	Part studied	% of the weight of dry raw material		
					total alkaloids	cytisine	
9. IV	Environs of the village of Bogustan	Beginning of after-growth	2-10	Epigeal part, roots	3-40	1,30	
14. IV		Vegetation	10-15	Epigeal part	0,68	0,37	
19. IV		Budding	15-20		3,32	1,30	
29. IV		Flowering	35-50		2,92	1,04	
15. V		Beginning of fruit bearing	40-60		2,65	0,94	
1. VI		Fruit bearing (seeds of milky ripeness)	40-60	Epigeal part	2,43	1,02	
5. VIII		Environs of Yangiabad	Fruit-bearing (ripe seeds)	40-60	Roots	0,47	0,20
						0,54	0,25
27. VII			Second growth of the shoots	25-32	Seeds	3,46	1,80
24. IV			Budding	25-40	Epigeal part	2,63	1,00
15. V	Gorge of the River Karabau	Flowering	50-60	3,54		1,54	
					2,15	0,85	

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