

POSTER PRESENTATIONS

LIPIDS OF *Alhagi kirghisorum* SCHRENK SEEDS

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Kirghiz camelthorn (*Alhagi kirghisorum* Schrenk) belongs to the family Fabaceae and is a perennial halophytic plant characterized by high tolerance to drought and soil salinity. This species is widely distributed in the desert and semi-desert regions of Central Asia. In Uzbekistan, it is found predominantly in the Bukhara, Navoi, Kashkadarya, and Surkhandarya regions.

The material used in the present study consisted of the seeds of *Alhagi kirghisorum* Schrenk collected in the Bukhara region of Uzbekistan. This species is widely used in traditional medicine as an anti-inflammatory, antioxidant, antimicrobial, diuretic, and wound-healing agent. In addition, the plant has significant forage and land reclamation value, contributing to the restoration of saline and degraded soils. The physicochemical characteristics and fatty acid composition of the seed lipids of *A. kirghisorum* were investigated. The moisture content of the raw material was found to be 7.14%, the yield of neutral lipids (NL) was 5.22%, and the content of unsaponifiable matter accounted for 4.10% of the total lipid mass. The NL fraction was found to contain triacylglycerols (the predominant lipid class), hydrocarbons, free fatty acids, triterpenols, sterols, and fatty acid esters of aliphatic alcohols, sterols, and triterpenols. Fatty acids were isolated from the NL fraction by alkaline hydrolysis and subsequently converted into their methyl esters using diazomethane. The resulting fatty acid methyl esters (FAMES) were analyzed by gas chromatography (GC) using an Agilent GC 8860 chromatograph. The results are presented in the Table.

Table. Fatty Acid Composition of the Neutral Lipids from *Alhagi kirghisorum* Seeds
Determined by Gas Chromatography (GC), % of Total Neutral Lipids

Fatty acids	Composition (%)	Fatty acids	Composition (%)
4:0,6:0,8:0,10:0	1.63	18:0	3.23
12:0	0.95	18:1	16.54
14:0	0.21	18:2	60.11
15:0	0.77	18:3	1.84
15:1	0.44	20:0	0.44
16:0	11.34	20:1	0.12
16:1	0.11	20:2	0.15
17:0	0.18	20:3	0.10
17:1	0.10	22:0,24:0	0.91

A total of 22 saturated and unsaturated fatty acids (C4-C24) were identified in the neutral lipid (NL) fraction. Unsaturated fatty acids accounted for 80.34% of the total fatty acids, with linoleic acid (18:2 ω -6, 60.11%) being the predominant component. The NL fraction also contained biologically active fatty acids, including α -linolenic acid (18:3 ω -3, 1.84%), eicosadienoic acid (20:2 ω -6, 0.15%), and eicosatrienoic acid (20:3 ω -3, 0.10%).