

FATTY-ACID COMPOSITION OF THE HERBAGE OF SOME SPECIES OF THE
GENUS *Erigeron*

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We have investigated the fatty-acid compositions of the epigeal parts, gathered in the flowering phase, of five species of the genus *Erigeron*, family Asteraceae, growing in the Khar'kov province (wild and decorative plants). The only information to be found in the literature relates to the qualitative composition of the fatty acids in the acid fraction of the essential oil of *E. annuus* [1].

The methyl esters from the neutral lipids that had been extracted with petroleum ether and had then been transesterified with Peisker's mixture [2] were analyzed by GLC on a Chrom-5 instrument. The results are given in Table 1. GLC conditions: steel column 0.3 × 250 cm, stationary phase Inerton N-AW-DMCS, coated with 10% of DEGS, isothermal at 190°C, carrier gas OSCh ["ultrapure"] nitrogen at 30 ml/min, rate of flow of air 350 ml/min.

The amounts of the particular acids determined in the species investigated were different. Among the unsaturated acids, linoleic predominated, a high level of it being found in *E. venustus* and *E. alpinus*, while the main saturated acids were stearic and palmitic. Lauric and myristic acids were present in insignificant amounts or were absent. Each of the species studied had characteristic features of its qualitative and quantitative fatty-acid compositions; i.e., a fairly pronounced specificity in relation to this characteristic, particularly so far as concerns linoleic and linolenic acids.

The high content of unsaturated fatty acids, which possess vitamin F activity, permit the assumption of a hypocholesterolemic action of the lipid fractions obtained from the dry herbage of plants of the genus *Erigeron*. The most promising in this respect are *E. venustus* and *E. alpinus*.

TABLE 1. Composition of the Fatty Acids in the Neutral Lipids (GLC, % by weight)

Acid	Symbol of the acid	Decorative			Wild	
		<i>E. venustus</i>	<i>E. spesi- sus</i>	<i>E. alpinus</i>	<i>E. acris</i>	<i>E. annuus</i>
Lauric	C _{12:0}	Tr.	—	—	Tr.	—
Myristic	C _{14:0}	Tr.	Tr.	Tr.	Tr.	Tr.
Palmitic	C _{16:0}	4.5	14.5	8.7	7.5	7.6
Palmitoleic	C _{16:1}	0.9	2.6	3.3	1.2	2.8
Stearic	C _{18:0}	5.4	4.9	10.1	4.4	8.9
Oleic	C _{18:1}	13.4	15.3	10.8	8.3	7.4
Linoleic	C _{18:2}	75.8	37.2	61.8	56.0	46.7
Linolenic	C _{18:3}	Сл.	25.5	5.1	22.6	26.6

LITERATURE CITED

1. N. I. Prokhorova, Methods of Biochemical Investigations [in Russian], Khimiya, Moscow (1982).
2. M. Miyozawa and H. Kameoka, Agric. Biol. Chem., 43, No. 10, 2199-2201 (1979).

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