SEED OILS OF Ungernia Victoris

T. V. Chernenko, A. U. Umarov, and S. A. Khamidkhodzhaev

Ungernia victoris Vved., family Amaryllidaceae, is a perennial plant growing in the mountain regions of Uzbekistan and Tadzhikistan [1]. The leaves and bulbs of <u>U</u>. victoris are a source of drugs [2].

We have investigated the seed oil of <u>U. victoris</u>, which has not been studied previously. The seeds are flat and black in color, the weight of 1000 seeds is 14.8 g, and their oil content 12.98%. The oil is light yellow with a faint herbaceous odor. The main indices of the oil and of the fatty acids are given below:

Index	0 i 1	Fatty acids
Specific gravity, d4°	0.9268	
Refractive index, n_{D}^{20}	1.4710	
Acid No., mg of KOH/g	50.19	_
Saponification No., mg of KOH/g	202.86	-
Hehner No., %	92.25	-
Unsaponifiables, %	2.59	-
Iodine No., $\%$ of I ₂ (according to		
Kaufmann)	151.06	153.20
Neutralization No., mg of KOH/g	-	207.40
Mean molecular weight of the		
fatty acids	-	270.54
Phosphatides, %	0.87	-

The fatty-acid composition was determined by gas-liquid chromatography (%): palmitic 11.62, oleic 21.35, stearic 1.82, linoleic 64.42, and palmitoleic 0.79.

From the UV spectrum, the amount of conjugated dienes was 1.31%. The qualitative composition of the fatty acids of <u>U. victoris</u> oil is similar to that of cottonseed oil.

By the method of enzymatic hydrolysis [3], the oil was found to have the following composition (%): G1 SSS 0.13, G1 USU 2.69, G1 SSU 1.20, G1 SSU 28.52, G1 SUS 3.16, and G1 UUU 64.30. The main triglyceride types are triunsaturated and diunsaturated.

LITERATURE CITED

- 1. S. A. Khamidkhodzhaev and E. E. Korotkova, Dokl. Akad. Nauk UzSSR, No. 7, 30 (1966).
- 2. M. D. Mashkovskii, Drugs [in Russian] Moscow (1957), p. 89.
- 3. T. V. Chernenko, A. L. Markman, and A. U. Umarov, Prikl. Biokhim. i Mikrobiol., <u>5</u>, 616 (1969).

Institute of the Chemistry of Plant Substances, Academy of Sciences of the Uzbek SSR. Translated from Khimiya Prirodnykh Soedinenii, No. 4, pp. 510-511, July-August, 1975. Original article submitted January 31, 1975.

© 1976 Plenum Publishing Corporation, 227 West 17th Street, New York, N.Y. 10011. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission of the publisher. A copy of this article is available from the publisher for \$15.00.