

Why Should We Subscribe to a Translation of Doklady?

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Source: *AIBS Bulletin*, Vol. 12, No. 3 (Jun., 1962), pp. 35+56

*Evidence is offered that the articles in Doklady represent the main currents of plant-science research in the USSR*

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## Why Should We Subscribe to a Translation of Doklady?

**D**URING this period of general reappraisal and readjustment of many political problems which face the West and the East, a deeper understanding and knowledge of the scientific endeavors of the two opposite camps is certainly in order. In this respect, the USSR, in particular, is doing splendid work in studying our physical and natural scientific literature and in translating and publishing enormous numbers of our texts and monographs. In the capacity of the Advisory Editor of the translation journal of the Doklady Botanical Sciences Sections Akademii Nauk SSSR, I constantly come across citations dated one year or more later than the publication of the same book in English. On checking, I find inevitably that the date referred to is that of the Russian translation of the English book.

American scientists, on the other hand, are far less familiar with the Russian scientific literature. Because very few Americans know the language, our translation programs are limited. The limited knowledge of Russian literature often leads some scientists to the rather superficial conclusion that Russian research in biology, and in botany in particular, is guided by the prevalent theory held by those in political power. Some experiences in the past may have provided a foundation for this belief, but the USSR, being a dynamic society, changes and so does the attitude of the powers towards research and scientific freedom.

It is true that scientific research in the USSR is organized and specialized, but that does not prevent valuable work being done. There are many scientific institutions in the USSR; some are connected with universities, regional academies, agricultural stations and forestry organizations, and others are connected with tropical, mountain, desert, swamp and polar stations. All of these institutions employ researchers who publish their results in either local publications or society journals. The most important papers are submitted to the supreme arbiter of research in natural sciences, the Akademii Nauk SSSR.

*Doklady Akademii Nauk* is the official publication of this organization. It comes out in six volumes yearly, each containing some 1500 pp and good illustrations. Various groups of physical and natural sciences are represented in the *Doklady*, and the papers are sponsored accordingly by the academician in the particular field of knowledge. The papers in the field of biology, biochemistry and botany are translated from cover to cover in this country by the American Institute of Biological Sciences under a grant from the National Science Foundation. There are three translation journals which cover corresponding material of the *Doklady*. They are (1) *Doklady Biological Sciences Sections*, Dr. Charles C. Davis, Advisory Editor, (2) *Doklady Biochemistry Sections*, Dr. Jacob A. Stekol, Advisory Editor, and (3) *Doklady Botanical Sciences Sections*, Dr. Helen P. Sorokin, Advisory Editor.

A young physicist who made an important discovery of a solid-state optical maser about a year ago has told me that he was very much stimulated in his research by a paper of two Russian physicists published in the *Doklady*. As a rule, the physicists read *Doklady*, and the translations are now to be found in almost every scientific library and laboratory of English-speaking countries.

The distribution of and the subscriptions to the *Doklady* of the Biological, Botanical and Biochemical Science Series are still very unsatisfactory, however. Because the Botanical Sciences Sections is particularly poorly represented in the subscription field, special attention is given to it in this article.

Many American scientists have an erroneous impression that this journal represents an incidental collection of articles in a limited field of knowledge which neither describes the methods used nor cites the literature available. The reality is quite the opposite; practically all branches of botany are represented in the articles, the methods are fully described, the papers are condensed, precise, well-illustrated and contain

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extensive literature citations. Being selected from a large number of contributions from a wide range of institutions, these articles certainly represent the main currents of research in plant sciences in the USSR.

To illustrate the scope of research covered, an analysis is made of the contents of a whole number of volumes for 1960. The translated volumes of *Doklady*, Botanical Sciences Series, for 1960 (vol. 130, 131, 132, 133, 134 and 135) contain 296 p. Disciplines covered include physiology (43 articles), ecology (13 articles), botany (9 articles), embryology (6 articles), phytopathology (5 articles), morphology (4 articles) and anatomy (3 articles). The division of the disciplines into the above sections is arbitrary because many papers could be

listed in both physiology and ecology as well as in other sections.

The contents show a variety of topics and often interesting and different approaches and ingenious new techniques. The experimental studies in ecology (which in Russia is often closely related to forestry), the utilization of histochemical techniques and the application of both the biochemistry and biophysics in physiological and ecological research should be mentioned in particular.

The translated journal appears only six months after the date of the original publication and some 10 months after the Russian article was submitted for publication.

(Since the writing of this article, the *Doklady Botanical Sciences Section and Biochemistry Section have been combined and will appear under one cover with the Doklady Biological Sciences Section.*—The Editor.)

## CYTOLOGICAL INVESTIGATION

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doing a large volume of very important work. Cancers of the lung, esophagus, cervix, etc. are being successfully diagnosed. There are 50 workers in the laboratory, which is directed by Leopold Kos. His manual on the cytological diagnosis of cancer is to be published soon.

### Conclusions

Vigorous growth of biological scientific-research institutes in the USA began two or three years ago, new institutes are being organized and old ones expanded and modernized. New installations which are very suitable for work are being built in large numbers. This has caused a shortage of scientific workers in the USA at present. They are trying to fill this gap quickly by attracting young people just finishing in the universities and medical schools to work in scientific-research laboratories. There is wide use of graduate students to provide junior scientific staff.

The scientific-research laboratories are usually not very large (5 to 10 persons); their work is clearly defined, and they are provided with an adequate amount of excellent modern equipment.

In all medical and biological scientific-research institutions, much attention is being given to working out cytological problems. It is characteristic of the work that problems are solved by teams consisting of cytological specialists with different backgrounds and qualifications — biochemists, physicists and chemists. Outstanding specialists in cytology (for example: Porter, Palade of the Rockefeller Institute, Novikoff of the Albert Einstein College of Medicine and Mazia of the University of California) make wide use in their work of electron microscopy, spectrophotometry, cytochemistry, immunochemistry, fractional and ultracentrifugation, etc. Specialized personnel for cytology laboratories are selected with this in mind.

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