PROBLEMS OF OCCUPATIONAL HYGIENE IN AGRICULTURE AS DISCUSSED AT A SYMPOSIUM IN SARATOV

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[Following is the translation of an article by V. N.
Kozlov (Saratov), published in the Russian-language
periodical Gigiyena Truda i Professional'nye Zabole-
vaniya (Industrial Hygiene and Occupational Illnesses)
7 (5), 1963, pages 59-60. Translation performed by
Sp/6 Charles T. Ostertag Jr.]

On the initiative of the Scientific Council of the RSFSR
Ministry of Public Health, a symposium devoted to rural hygiene was
convened on 10-11 May, 1962 in Saratov on the basis of the Scientific
Research Institute for Rural Hygiene. The participants at this meet-
ing examined problems of industrial hygiene in agriculture and communal
hygiene in the village.

Taking part in the symposium were representatives of the RSFSR
Ministry of Public Health, hygiene personnel from medical institutes,
doctors from sanitary-epidemiological stations of Krasnodarskiy Kray,
Pskovskaya, Tambovskaya, Voronezhskaya, Leningradskaya, Moskovskaya,
Saratovskaya, and other krays and oblasts of the RSFSR, and also
guests from the Ukrainian and Belorussian Republics.

Corresponding member of the AMN, USSR, Professor D. N. Kalyuzhnyy,
came forward with an account of the status of research on village
hygiene in the country.

Ye. I. Kandaurovaya's report (Moscow) contained new data on the
hygienic nature of working conditions for mechanics working on various
agricultural machinery. For improving the working conditions on newly
developed tractors, the author recommends the installation of a cabin
made out of heat insulation and soundproofing materials, an arrangement
for shock proofing and regulating the height of the seat, the carrying
out of effective measures in combating noise and vibration, and equip-
ing the cabin with air conditioning.

V. N. Kozlov reported about the results of the complex physio-
logical investigations of tractor drivers working on new makes of high
speed caterpillar tractors which were performed by a group of authors
at the Saratov Institute of Rural Hygiene. He noted that the most
characteristic physiological upheavals in tractor drivers were develop-
ed on the part of those systems of the organism which were found under
the most intensive influence of unfavorable industrial factors. Thus
in tractor drivers under the conditions of work, there was a lowering
of the functions of external respiration and of the auditory analyzer,
and stress was observed on the processes of thermoregulation. Muscular
fatigue was noted with several peculiarities in it, conditioned by
muscular static tension due to the working position.

The report of M. I. Karpovaya (Saratov) caused lively interest.
The speaker announced facts about the hygienic investigations conducted
at mechanized threshing floors and elevators and experiments on animals
subjected to the influence of grain dust. The author observed in
experimental animals the formation of cellular granulomas around the
dust particles and also profound inflammatory changes in the lung
tissues. The results of the investigation permit the making of a
number of hygienic recommendations concerning the sanitation of working
conditions at mechanized threshing floors and elevators.

M. N. Krasnogorskaya (Saratov) presented a report on the problems
of industrial hygiene when working with poisonous chemicals. Materials
were presented in it about the hygienic evaluation of experimental models:
of new ventilator sprays, an aerosol generator, a hose sprayer, and
other equipment intended for work with poisonous chemicals in agricul-
ture; general deficiencies in these machines were exposed. Manual
operations are present which lead to contact of the workers with poisonous
chemicals during the preparation of working solutions and dusts, and
also when loading them in receptacles, etc. The mechanization of opera-
tions with poisonous chemicals and the creation of new machines which
meet hygienic requirements - this is the most important link in the
sanitation of working conditions when working with poisonous chemicals.

Professor L. I. Los' (Saratov), P. N. Zhilin (Moscow), A. I.
Aksel'rod (Moscow), and Ye. G. Polyakova and G. A. Abramovich (Saratov)
came to the symposium with communications on problems of communal
hygiene in the village.

The reports caused a lively debate in which 24 persons took part.
It was unanimously noted that the increase of attention of the medical
workers of the Russian Federation to research on village hygiene yielded
several positive results of the problem in question. It was noted
simultaneously in speeches at the symposium that these successes already
could satisfy neither the hygienists nor even more so the practical
needs of the agricultural economy. It is necessary to widen the conduct
of investigations, raise the quality of the work performed, and attract
the branch-institutes dealing in hygiene to participate in them. A
particular concern was caused by the state of realization of the results
of the investigations concerning the hygiene of agricultural labor in
the practice of the agricultural economy. Engineer-designers now ba-
sically know the hygienic deficiencies of the tractors and combines
developed by them, but encountering certain difficulties, they are not
eliminating them.
It is necessary to establish the very intimate contact and business collaboration of the hygienists with the engineers who will often decide common problems. Without a well established coordination of research, especially inter-departmental, it will be very difficult to do this.

Based on the results of the symposium's work its participants accepted the decision which evolved. It contains a number of concrete proposals directed at the improvement of the organization and quality of research concerning rural hygiene.