

grow very rapidly and give a very large amount of green mass when grown in suitable environmental conditions.

Considering all these facts, I think that our allopolyploid *N. rustica*—*N. glauca*, as well as the back-crosses and other hybrids between *N. rustica* and *N. glauca* that are studied now in the All-Union Tobacco Institute by N. I. Zhukov might answer the demands of the industry in a short time if the plant-breeding work with these plants is put on a somewhat larger scale.

I shall also mention here that most of the allopolyploid segregates are from perennial plants like *N. glauca*, and the annual parent, *N. rustica*. In autumn 1938, when the temperature dropped at night to -5°C ., the leaves of *N. glauca* were severely injured, but the plants were not killed. The same reaction occurred with most of the allopolyploid segregates. A few segregates were, however, less injured than *N. glauca* plant. A single segregate was not affected by -5°C .. All *N. rustica* plants were killed by a tem-

perature of -3°C .. Amphidiploids *N. rustica* \times *tabacum* and *N. glauca* \times *Langsdorffii* behaved in a similar way. Autotetraploid plants of *Solanum Lycopersicum* were also more resistant to cold than their diploid forms. Preliminary observations show that a series of polyploid plants are more cold-resistant than their original diploids. This new character permits the polyploid forms to occupy more nordic areas than their original diploids. It seems very probable that polyploidy will help the plant breeders to move some of the existing cultivated varieties and even some forest plants towards more nordic regions by doubling their chromosome numbers.

¹ Kostoff, D., *Bull. Appl. Genet. Plant. Breed.*, 1935, Ser. II, No. 9, 153-62.

² Kostoff, D., *Compt. Rend. Acad. Sci., Moscow*, 1936, 10, 239-42.

³ Kostoff, D., *Journ. Genet.*, 1938 (in the press).

⁴ Ternov-sky, M., Khumura, M., and Zhukov, N. I., *Compt. Rend. Acad. Sci., Moscow*, 1937, 7, No. 1/2.

OBITUARY

Ravindra Nath Misra (1912-38)

ON the 9th of December 1938, a tragic accident removed from our midst Ravindra Nath Misra, Research Fellow in Botany in the University of Lucknow. Mr. Misra died of burns received by the bursting on him of a flask of alcohol which caught fire while he was trying to light a spirit lamp. He passed away very young, when he was hardly twenty-six and was beginning to carve out for himself a brilliant career in botanical research. Only a few days before his death he was awarded the *Ruchi Ram Sahni Prize* for 1938 for the best research work in Botany.

Mr. Misra became Research Scholar on obtaining his M.Sc. degree in 1936. By himself and in collaboration with Dr. S. K. Pande, he carried out investigations on the liver-worts of this country. He was collaborating with

Dr. Pande in the production of a series of monographs—"Studies in Indian Hepaticæ".

Mr. Misra had a tremendous love for mountaineering. He organised several expeditions from the Botany Department of the Lucknow University to far off places in the Himalayas and brought back with him valuable plant collections.

It is difficult to believe that a promising career like his could be cut short so cruelly and with such gasping suddenness. As a man, he had rare qualities: frank, straightforward and untouched by mannerisms. His is a loss to Indian Botany, not only on account



Ravindra Nath Misra

of what he could achieve during his butterfly existence, but also because of what he would have achieved if he had been spared. Among his friends he has left a void which cannot easily be filled.

RAJENDRA VARMA SITHOLEY.