The virulence of isolates of *Ustilago tritici* (Pers.) Jens. collected in Western Siberia

Orlova E.A., Bechtold N.P.

Siberian Research Institute of Plant Production and Breeding – Branch of the Institute of Cytology and Genetics, SB RAS, Krasnoobsk, Novosibirsk region, Russia

* e-mail: Orlova.Lena10@yandex.ru

Knowledge about the racial composition of the causative agent of loos smut and its ongoing inside-population changes, a necessary condition in developing of determined genetic protection of created varieties. The virulence of isolates, which have been collected mainly in the fields of the Novosibirsk region as well as Omsk and Altai Krai in the period 2015-2018 years evaluated by infecting varieties-differentiators. Two sets used for inoculation. The first – Russian, developed by V.I. Krivchenko (1987) to identify the races of loos smut. It consists of nine varieties, three are durum wheat and other are soft wheat. Another - Canadian, created by Nielson, Thomas (1996), used of foreign investigation, consists of 19 samples, of which TD-1, TD-11, TD-19 - durum wheat. In all on the virulence have been estimated 15 isolates, it assembled from different varieties of spring soft wheat. The isolate was one ear with loos smut. Isolate considered virulent to the differentiator, if more than 10 % of plants affected. The key proposed by V.I. Krivchenko and J. Nielsen, P. Thomas carried out identification of races. 66 race dominated in the Novosibirsk region by identified in the Russian set. This race met in the Altai region. In the Canadian set, it is registering as T8. Also in these regions revealed race 23, according to the reaction of differentiators Canada, race is identifying as T18. In the Novosibirsk and Omsk egions registered 12 race. In addition, 78 races identified in the Novosibirsk region, 58 - in the Altai region, and 1 race - in the Omsk region. All races specialized to varieties *T. aestivum* and did not able to infect hard wheat varieties.