

# Spring wheat varieties resistance to the common root rot

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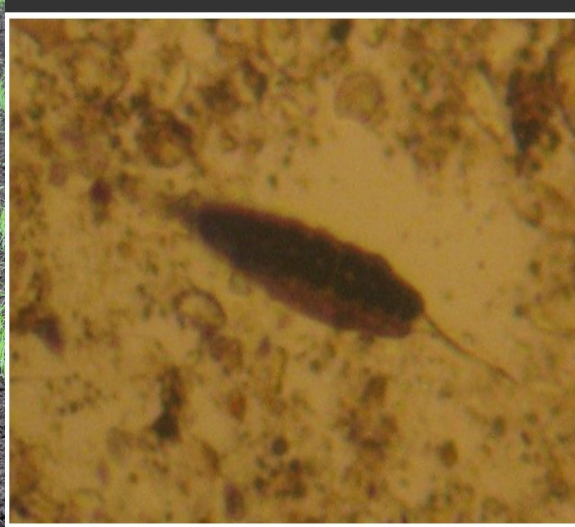
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# Purpose of research

Identify resistant to the common root rot (*Helminthosporium sativum* Sacc.) spring wheat varieties from the collection of the Institute of Cytology and Genetics.

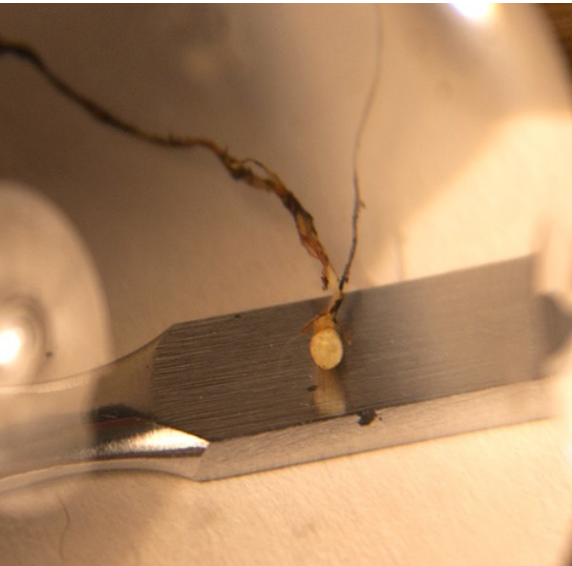


**The studies were carried out in 2020-2021 in the northern forest-steppe of the Ob region (West Siberia)**



# In the research, generally accepted methods were used [Phytosanitary diagnostics..., 2017]

- Root rot development differentiated by organs by sprouting and at maturity
- Mycological analysis of the affected organs
- Determination of *Bipolaris sorokiniana* conidia abundance by flotation method



# Пораженность органов яровой пшеницы корневыми гнилями на фазе всходов по сортам, 2020, %

Variety	Primary Roots	Secondary roots	Stem base
Novosibirskaya 15	8,3	4,8	6,6
Sibirskaya 17	12,8	7,4	10,1
Obskaya 2	14,7	7,4	11,1
LT 3	11,5	6,6	9,1
Tulaikovskaya Nadezhda	14,6	13,3	14,0
Tobolskaya	17,8	13,8	15,8
Zauralochka	6,4	5,8	6,1
Ruslada	10,0	5,0	7,5
Remis	6,1	7,1	6,6
NIL Thatcher Lr35	13,2	11,7	12,5
Jin Chun 2	9,6	4,8	7,2
Long Fu 13	9,6	8,8	9,2
Manu	15,6	9,2	12,4
Quarna	13,4	9,8	11,6
K-65834	18,4	11,11	14,8
HCP <sub>05</sub>	2,69	2,36	2,57

# Results

The varieties were divided into groups according to their ability to stabilize the phytosanitary state of the soil: "altruists", limiting the development of foci of *H.sativum* in the soil (Sibirskaya 17, Zauralochka, Tobolskaya and Quarna), "egoists", significantly worsening the phytosanitary state of the soil for subsequent crops (Remus, Jin Chun 2 and K-65834), "neutral", occupying an intermediate position.

**The reported study was funded by RFBR,  
project number 20-316-90008.**

The logo of the Russian Foundation for Fundamental Research (RFBR) is a blue square with a white curved shape on the right side.

**РФФИ**

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