MINGACHEVIR STATE UNIVERSITY

Discover the Fauna of Our Campus

Black grain wasp (Trachelus tabidus)

Family: Grain Sawflies or Straw Wasps (Cephidae)
Genus: Trachelus
Species: Black Grain Wasp (Trachelus tabidus)

The black grain wasp (Trachelus tabidus) is one of the internal pests of grain crops (wheat, barley, rye) in agriculture. It is very similar to the straw wasp in terms of its biological characteristics and the damage it causes, but differs from it in its appearance. Its body is thin and long (7–10 mm), like that of the straw wasp, but unlike it, it is completely shiny black. There are no bright yellow stripes on its abdomen (although sometimes there may be small dots on the sides). It is white, legless and slightly curled in shape. It spends its entire development inside the plant stem. It produces only one generation per year. Adult bees fly in April-May. The female lays her eggs in the upper part of the stem (the awn) of the grain. The larva that hatches from the egg feeds on the internal tissues of the stem and tunnels from top to bottom. The larva descends to the very bottom of the stem (near the root) to hibernate, where it gnaws the stem in a circular manner from the inside and hibernates in a cocoon.

Since the larva gnaws the inside of the stem, the water and nutrients reaching the spike are cut off. As a result, the spikes turn white prematurely, and the grains become thin and weak. Since the larva gnaws the stem from below before wintering, the stem loses its stability. During harvesting or in strong winds, the spikes break off en masse and fall to the ground. This makes it impossible for the combine to collect them during harvesting. Since the pest lives hidden inside the plant, agrotechnical

measures play a decisive role. The soil must be deeply plowed to destroy the larvae wintering in the stubble residues. Not planting grain in the same field consecutively breaks the pest's reproduction chain. The crop should be harvested as soon as it is fully ripe. The later the harvest, the greater the likelihood that the stems will break and fall to the ground. Wheat varieties with thick stem walls or full interior are more resistant to this pest. If the black grain weevil is not controlled, a significant part of the crop may remain in the field, especially in dry years.