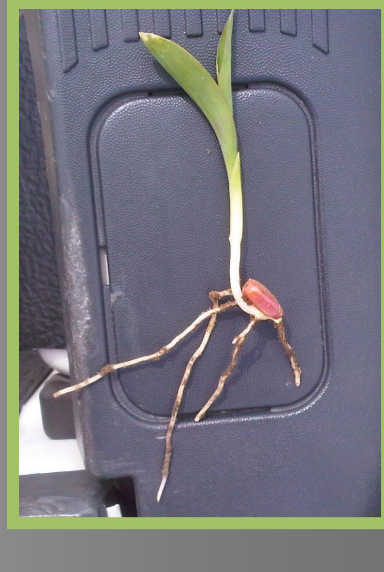


Corn root trials in progress: Update #1, June 1

This year we are running corn root trials to determine the root differences between varieties. From the last week of April to the first few weeks of May, various plots and side-by-side trials were planted by growers throughout Sunderland Co-op's sales territory. The different soil types and planting dates of the plots should help us determine the varieties with the strongest or biggest root systems, as well as which are the best yielders. Plots were planted on corn on corn as well as soybean ground, to see the effects of rootworm and other root problems and how well the traited corn will withstand them.

We started digging plants at the one leaf stage on the 16th of May, and were surprised to notice the root growth that was already present. Three and four main roots were found on the plants, and the roots were actually long enough that they were cut off with the trowel when they were dug up.

The following photos and write-ups give an idea of what we have found so far.



May 19: Plot East of Beaverton, planted April 30 into soybean ground

Similar root growth was noted in three varieties. Dekalb 40-22 had 3 main roots growing with a wider, shallower growth pattern than the other 2 varieties.

NK 23K3000GT also had 3 main roots, though slightly shorter and with deeper growth.

The Pioneer variety, 38N88, had 2 roots that were not as long, though they were cut off slightly when they were dug. This variety also looks to have a growth pattern similar to the NK variety.

May 21: East of Lindsay, planted April 27

Differences were noted between varieties from 3 brands.

Dekalb 38-21 had the longest roots, growing wide and shallow.

Pioneer's 8906HR and NK's 23K3000GT had similar root length and growth patterns, though the NK variety had more long roots than the Pioneer.

There was a small amount of secondary root growth on all varieties in the corn on corn ground, and a much larger amount where the corn followed soybeans.

