Control Crown Gall at Planting

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When planting fruit trees, growers have only one opportunity to minimize problems with crown gall for the life of the orchard. Crown gall is a bacterial disease that causes tumor growths (or galls) on the roots and crowns of many plant species. Crown gall can be an important pathogen that, when present, will limit tree growth and productivity. Once the tree is planted there is no cure! Stone fruits are particularly susceptible, especially mazzard rootstocks.

To protect against crown gall, two steps can be taken. First, plant only crown gall free trees. If trees arrive with galls present, realize that just removing the galls will <u>not</u> remove all infections. Some latent infections are likely to be present that have not yet caused the gall formation. Second, plan to inoculate roots with a biological control agent immediately prior to planting if planting into soil with the crown gall pathogen present, whenever stone fruits are replanted into old stone fruit sites. The biological control agent is <u>Agrobacterium radiobacter</u>. This biological control agent is available from some ag-chemical dealers in Michigan. It needs to be stored under refrigeration. To use, mix with water and apply as a mist to roots immediately prior to planting. It can be applied as a dip, but this has proven to require a lot more material to accomplish the same task of inoculation, so I no longer recommend the dip treatment. This treatment will not cure infections from the nursery; it will only protect the planting in the orchard.

We are aware of two commercially available products.

1. Galltrol-A (Strain 84): Manufacturer/Distributor: AgBioChem, Inc., 3 Fleetwood Ct., Orinda, CA 94563, USA; Phone 1-925-254-0789 <u>www.crowngall.com</u>

2. NOGALLtm: We have been made aware that there is a new strain of Agrobacterium radiobacter (K1026) that has been genetically engineered to greatly reduce the opportunity for the pathogen to evolve to become immune to this treatment. It is commercially available in a product called NOGALLtm. The product is available for purchase from New BioProducts, Inc. (www.newbioproducts.com)

Please send any comments or suggestions regarding this site to:

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