

Virus Research Project

The American Dahlia Society (ADS) has been working with Washington State University (WSU) on virus in dahlias since the early 1990's. An ardent dahlia grower by the name of Evie Gullikson got the work started with a donation that was eventually matched by local ADS members and societies. Additional donations by the Scheetz-Chuey Foundation led, in 2017, to the creation of the Carl F. and James J. Chuey Endowed Chair for Dahlia Research and Development at WSU. Professor Hanu Pappu, who is a world renowned plant virologist, was appointed to that Chair. The work by Professor Pappu at WSU serves as the basis for the recommendations in this brochure.

Example of "If In Doubt Throw It Out"



This dahlia plant is stunted and contorted with yellow veins in the leaves ; it should be removed from the garden.

Virus in Dahlias — Be Part of the Solution



American
Dahlia Society



WASHINGTON STATE
UNIVERSITY

Be Part of the Solution

One of the opportunities that has evolved from the virus work at Washington State University is for you to become an important part of the solution to the problem of virus in our dahlia gardens. There are two key items that need to become a part of your routine practice in your garden: 1) Disinfect your tools between working on different plants and 2) Remove plants that have obvious signs of virus.



Where Additional Information Can Be Found :

American Dahlia Society website at <https://dahlia.org/docsinfo/virus-in-dahlia/>

Dahlia Virus Research at <https://dahlia.wsu.edu/>

Tool Disinfection

When you work in your garden or divide tuber clumps there is a very real risk that you can and will move virus from the virused plants over to the clean plants unless you disinfect your tools between each plant.

There are three basic approaches you can use to disinfect your tools. The first is dipping the tools in a 10% solution of household bleach in water. That approach is readily available and inexpensive—and it is considered to be the “gold-standard” for eliminating virus contamination.

The second approach is a solution of 4 teaspoons of Dawn dishwashing detergent in 5 cups of water. That approach avoids the deleterious effect of bleach on your tools. A combination of rinsing the tools in the bleach followed by a dip in the soap solution is a good approach.

The third approach uses Virkon S for the disinfectant. Virkon S is a commercially available product that is commonly used in veterinarian clinic applications to kill virus.

Plant Removal

It is virtually certain that your garden contains a mix of clean and virused dahlias. Pictures of plants with advanced virus conditions are shown on the websites cited.

Aggressive implementation of an “if in doubt, throw it out” strategy in a dahlia garden has been shown to lead to a reduction of virused plants in your garden! That conclusion evolved from analyzing specific gardens that were part of a field testing program. The gardeners involved removed every plant that showed any sign of virus. Subsequent testing of their gardens showed a significant reduction in viruses in subsequent years.

A corollary to that observation is that, at the end of the season, you should dig and save only the strongest and healthiest plants. Saving tubers from all the plants will just increase the probability that you could carry virus over to the following year. Similarly, donating tubers from those “second rate” plants will tend to spread the problem to other members of your club, friends or family members.