

Some diseases for which you can buy disease resistant transplants

VEGETABLE	DISEASE
Broccoli	Downy mildew • Brown bead • Black rot
Cabbage	Black rot • Fusarium yellows • Bacterial speck
Cantaloupe and other melons	Downy mildew • Powdery mildew • Fusarium, races 0, 1, 2
Cucumber	Angular leaf spot • Anthracnose • Zucchini yellow mosaic virus • Cucumber mosaic virus • Papaya ringspot virus • Watermelon mosaic virus • Downy mildew • Powdery mildew • Scab
Eggplant	Tobacco mosaic virus • Verticillium wilt
Lettuce	Downy mildew • Lettuce mosaic virus
Pepper	Tobacco mosaic virus • Bacterial leaf spot, races 1, 2, 3, 5 • Potato virus Y • Cucumber mosaic virus • Pepper mottle virus • Tobacco etch virus
Squash (summer)	Powdery mildew • Zucchini yellow mosaic virus • Cucumber mosaic virus • Papaya ringspot virus • Watermelon mosaic virus
Squash (winter)	Powdery mildew
Tomato	Alternaria stem canker • Bacterial speck • Early blight • Fusarium, races 1, 2, 3 • Nematode • Stemphyllium • Gray leaf spot • Tobacco mosaic virus • Verticillium, races 1, 2 • Tomato spotted wilt virus
Watermelon	Anthracnose, races 1, 2 • Fusarium, races 0, 1, 2

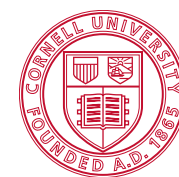


This brochure available online at:

www.nysipm.cornell.edu/publications/dis_res_veg/files/dis_res_veg.pdf

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Disease Resistant Vegetables



Cornell University



New York State
Integrated Pest Management
Program

Choose disease resistant vegetable varieties for a healthy garden!

What is disease resistance?

Disease resistance is a plant's genetic ability of a plant to prevent a pathogen from causing damage. All plants of the same variety are genetically identical so they are resistant to the same diseases. Growing disease resistant plants is the best way to reduce diseases in your vegetable garden and have a healthy harvest.

If a plant is free of diseases, does that mean it is disease resistant?

Not necessarily. In order for disease to develop, the pathogen needs to be present and the environment needs to be right. Under these conditions, a disease resistant variety will still look good and produce well while a susceptible variety will show symptoms of the disease. Even a disease resistant variety can get the disease if it is under other stresses, like drought, so you still need to water and feed them when necessary.



Are disease resistant varieties resistant to all diseases and insects?

Unfortunately not. A disease resistant variety might not even be resistant to all the races and strains of a single disease. However, plant breeders are working to develop varieties which are resistant to multiple fungal, bacterial and viral diseases. Insect resistance isn't common in garden vegetable varieties although some have resistance to nematodes.

How does disease resistance work?

Natural selection has made some plants resistant to diseases. A plant's leaf surface may prevent the disease from growing, or the plant may be able to react to the infection to stop its spread. A plant breeder can combine the disease resistance with other traits like high yield, good flavor, and fruit size for a variety that makes your garden a success!

How do I know which disease resistant vegetable variety to buy?

If you know which diseases you usually get in your vegetable garden, look for a variety with resistance to one or more of those diseases. If you aren't sure which diseases you have, or you are starting a garden for the first time, try a variety with resistance to multiple diseases.

Where can I get more information on resistant vegetable varieties?

- Vegetable Varieties for Gardeners (<http://vegvariety.cce.cornell.edu/>) has lots of information on the best varieties to grow. Use the search feature and type in the disease name or simply type in "resistant" to find a list of appropriate varieties.
- Vegetable MD On-line (<http://vegetablemdonline.ppath.cornell.edu/>) has descriptions of diseases of vegetables and lots of pictures to help you identify what's making your plants sick. It also lists resistant varieties for each crop.
- Some seed catalogs add codes for disease resistance to their variety descriptions.
- Ask at your local garden center!

