

## Saving Vegetable Seeds

Julian Hoyle

Seeds of some vegetables can be saved. If the seed packet is labeled as “Hybrid”, seed should not be saved, because crops grown from those saved seeds will not always be the same as the hybrid [parent plant], and may even be very different. If the seed packet is labeled as “open pollinated,” then seed may be saved.

Some seeds require washing to remove sugars which may encourage fungal molds. Always use clean water for this. Dry seed well in the shade for two to three days until it is completely dry. After the seed has been harvested and cleaned, it should be kept dry and in a cool place.

In tropical countries with high humidity, seeds which are kept in the open and not in air-tight containers, may absorb moisture from the air, and this together with high temperatures, will cause seed to die quickly. Also, if seed is kept in the sun or other hot places, it will quickly die. The best way to keep seed is to dry it well, then to keep it in a screw top glass jar which has a rubber seal, in a cool place. This will also protect the seed from weevil and insect damage. Dry seed kept in an airtight container as described above, should remain alive for 2-3 years.

Crop	Ease of saving seed	Instructions for saving seed
Beans	Easy	Allow plant to mature completely. When pod is dry, extract seed. Treat seed gently so as not to crack or split seed coat, or break off part of seed. Bean seed can be easily damaged by rough treatment.
Beet	Difficult	Roots need a period of cold weather for growth to stop and for flowering and seed production to start. Not recommended for tropical countries.
Broccoli	Difficult	Plants require cold weather conditions to cause plant to flower and produce seed. Some tropical varieties may flower if left to mature completely. After flowering, allow the pods to dry, then remove seed.
Brussels Sprouts	Difficult	Plants require cold weather conditions to cause plant to flower and produce seed. Some tropical varieties may flower if left to mature completely. After flowering, allow the pods to dry, then remove seed.
Cabbage	Difficult	Plants require cold weather conditions to cause plant to flower and produce seed. Some tropical varieties may flower if left to mature completely. If seed production is attempted, the cabbage head must be cut open carefully to expose the growing point to grow up and produce flowers. Care is needed not to damage the growing point when cutting the heads open. After flowering, allow the pods to dry, then remove seed.
Cantaloupe	Easy	Allow plants to mature completely, and fruits are past normal market stage. Extract seeds, wash in clean water, and dry well in shade.
Carrot	Difficult	Roots need a period of cold weather for growth to stop and for flowering and seed production to start. Not recommended for tropical countries
Chinese Cabbage	Difficult	Plants require cold weather conditions to cause plant to flower and produce seed. Some tropical varieties may flower if left to mature completely. After flowering, allow the pods to dry, then remove seed
Cucumber	Easy	Allow plants to grow well past normal market stage, and fruits turn a yellowish color, and plant is no longer growing. Harvest fruits, extract seed, wash in clean water, and dry in shade.

Lettuce	Moderate	Plants will start flowering under hot conditions, but head lettuce needs to have heads cut open when young to allow flower stalk to grow up. Care needed when cutting heads open so as not to damage growing point. Harvest seed when flowers appear white and fluffy.
Mustard	Easy	Most plants will flower and produce seed. After flowering, allow the pods to dry, then remove seed.
Onion	Difficult	Bulbs need a period of cold weather for growth to stop and for flowering and seed production to start. Not recommended for tropical countries
Peas	Easy	Allow plant to grow to full maturity and pods dry out. Shell seeds from pods.
Pepper	Easy	Allow plant to grow to full maturity and fruits change color from green to red or yellow. Cut open fruits, extract seed, and dry in shade.
Radish	Easy	Most small red radish varieties will flower easily and produce seeds. When seed pods are dry, remove seed. Some Asian varieties, especially daikon, require cold weather to cause plants to flower. These are difficult to produce in tropical countries.
Spinach	Easy Impossible	Some varieties will grow to maturity and produce flowers easily. Harvest seed when plant is dry. Many varieties require long day lengths before plant will flower and set seed. These varieties will not produce seed in tropical countries.
Squash	Easy	Allow plants to grow well past normal market stage, and fruits turn a yellowish color, and plant is no longer growing. Harvest fruits, extract seed, wash in clean water, and dry in shade.
Tomato	Difficult	Allow fruits to ripen to full red color. Extract seed into a container and allow to sit in a cool place for 24 – 48 hours for natural fermentation to take place. Wash seed with clean water, strain, and dry in shade.
Watermelon	Easy	Allow fruits to mature to full market stage. Open fruit and extract seed. Wash with clean water, and dry in shade.

Crops that require cold weather to start flowering and seed production generally need a period of at least 6 weeks at a temperature of 5°C (40°F). Root crops (beet, carrots, and onion), are regarded as two-year crops to produce seed. The first year is to produce the root or bulb, and after cold weather, the second year growth produces flowers and seeds. These are difficult to produce seed in tropical countries.

The cabbage family, (broccoli, brussels sprouts, cabbage, chinese cabbage), also need a period of cold weather after the plant has reached a certain stage of growth, to cause flowers and seeds to be produced. Varieties developed for temperate countries may produce a good vegetable crop in tropical countries, but will not usually produce seed because the weather does not get cold enough. There are some tropical varieties of these crops which do not need quite such cold conditions to produce seeds.

*Julian Hoyle has a masters degree in Agriculture from Cambridge University, England. He is retired, having more than 30 years production experience in the seed industry working for Asgrow Seed Company and Seminis Inc. He has produced seed crops in over 25 countries in five continents, and has extensive experience training subsistence farmers, and working in developing countries.*