

## Seed Saving Guideline No. 8

# French Beans

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*Phaseolus vulgaris*

Family: *Leguminosae*

French beans are either dwarf or climbing (bush or pole in the U.S.), but many dwarf varieties put out a few long, climbing shoots. Different varieties have been selected to be eaten at different stages; immature pods of snap or green beans, fresh swollen seeds (often called haricots) removed from their pods, and dried mature beans. Some are stringy, others stringless. The colour of the pods varies from yellow through to green and purple, and some are beautifully marked. The beans themselves come in a bewildering array of shapes, sizes, colours and patterns. The flowers are perfect and self-compatible and predominantly self-pollinating, but have to be tripped to set seed.

### Growing & Roguing

- French beans being grown for seed should be grown as you would for an edible crop. However, you should make sure the growing season is as long as possible to allow the pods to mature and dry.
- As French beans are inbreeders (that is, they self-pollinate), you can save seed from just a few plants – it is better, though, if you grow as many plants as possible as you may need to rogue out and select – we recommend around 20 plants.
- Some plants may produce noticeably different foliage or pods from the majority; seed should not be saved from these.

Like peas and runner beans, the characteristics of the seed – its size, shape, colour and markings – should be more or less uniform and the same from generation to generation. There will be no visible signs of crossing until the second generation, so go back to the seeds saved from two harvests previously for seed that should be pure.

### Pollination & Isolation

Insects do visit French beans and can cause crossing between different varieties. The extent of this crossing is hotly debated, but is considerably less in French beans than in runner beans and broad beans. Caging is probably not necessary and an isolation distance of 10m is probably adequate. Nevertheless, you should not grow two varieties side by side if you intend to save seed, or grow two varieties with very similar seed markings in the same year, as it will be much harder to detect any crossings.

### Harvesting

Ideally, the pods should be dried on the vines but if bad weather threatens, uproot the plants and hang them upside down somewhere warm until the pods are completely dry.

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## Cleaning

It is best (if not dealing with large quantities) to pod beans by hand; reject any with atypical markings. Large quantities can be threshed by putting the pods into a pillowcase or sack and treading on them or bashing them with a rolling pin; or by shaking the vines vigorously inside a plastic dustbin. Seeds threshed this way will need additional cleaning by winnowing.

Winnowing is best done outside in a stiff breeze. Pour the seed steadily from one container to another, allowing the wind to blow the chaff away. Do this over a tarpaulin, in case a sudden gust wafts away the seed. Repeat until all the chaff has gone and only seeds remain. If necessary, set the beans out to dry further somewhere warm and dry, but don't allow them to get too hot.

**You may notice small holes in your harvested beans. These are caused by bean weevil, or bean seed beetle, larvae. These can devastate your crop of beans as they eat the endosperm away when they hatch. If they begin to feed on the seed embryo the bean will not germinate. Adults often emerge in storage and can complete several generations before planting time. Remove all trace of any beetles you may find. All stages can be destroyed by a 7-day minimum stay in a domestic freezer, without damaging the seeds. Ensure that the beans dry out fully afterwards before storing them. Hand podding allows any infested seeds to be identified and discarded. As long as the embryo is not attacked and the seeds no longer contain any beetles, they will still germinate so, despite looking unsightly, can be kept for home use.**



Infestation of bean weevil/bean seed beetle

## Storage

French bean seeds should last in cool, dry storage for at least 3 years.

## Returning Seed to HSL

It is vital that seed returned to HSL is not cross-pollinated. So not send seed to us that you suspect might have crossed.

Remove any beans with obvious weevil damage, retaining any that have not sustained embryo damage for your own use. If you have frozen the seed please note this on the packet.

Seed must be completely dry and fully cleaned. Seed that retains moisture can go mouldy in transit and will have to be discarded. It can take a few days for seed to get to us in the post so pack seed in breathable material, e.g. a paper envelope or cotton bag, and place it in a padded envelope or stout box to protect the delicate seed from impact damage.