French beans are thought to have originated from Central and South America where they were grown as an indigenous crop for at least the past 5,000 years. Spanish and Portuguese explorers introduced the legume to Europe and Africa, and by the nineteenth century the slim pods became a common vegetable in France, *haricot verts*, hence being called “French” beans.

The slender, less stringy, delicate bean with tiny seeds earned its status as a sophisticated side to entrees in French haute cuisine by the twentieth century. Today, French beans are a common alternative to green beans and other legumes, and are grown around the world including India and Africa where they are a staple food.

References: *Colorado State University, Denver County Extension, Royal Horticultural Society (United Kingdom)*.

**TYPES, VARIETIES & CUTS**

French beans, *Phaseolus vulgaris*, come in two types of plant: climbing pole beans and bush beans (also called snap beans, and formerly known as ‘string beans’ due to their fibrous strings, which are nearly nonexistent now due to selective breeding). Within these, varieties include green, cream, yellow, flecked, and purple French beans.

Unlike runner beans, this legume only produces pods once and must be replanted. The primary difference between French beans and other green beans is the narrow pod and less string.

References: *Royal Horticultural Society, UC Davis Postharvest Technology website, University of Illinois Extension, USDA*.

**PESTS & DISEASE**

Common pests include *slugs* and *snails* that feed on seedlings, which can be mitigated with sawdust or eggshell barriers and copper tape. Some slug pellets may be harmful to wildlife and pets; those made from aluminum sulphate or ferric phosphate are less toxic.

*Green* and *black aphids* may colonize in early summer, their honeydew secretions can create *mold*, though this may not damage the plant enough to affect harvest. Other threats to French beans include *anthracnose, mosaic, root rot, rust, blight* and *leaf spot*.

References: *Cornell University, Royal Horticultural Society, UC Davis Postharvest Technology website*. 
CULTIVATION, STORAGE & PACKAGING

French beans should be planted in late May or early June after the risk of frost. They can be planted indoors and transplanted later as temperatures warm up. Bush bean seeds should be planted 2 to 4 inches apart in rows 18 to 24 inches apart, and can reach heights of slightly over 2 feet, while pole variety plants can grow as tall as 6 or 7 feet. Plant seeds of pole beans 4 to 6 inches apart in rows 30 to 36 inches apart.

Harvesting

More delicate than standard green beans, French beans are harvested manually rather than mechanically. Pods should be harvested before seeds bulge, strands become tough, or color begins to wane. Pick the whole legume without damaging the pod, avoid over-packing, and cool beans quickly for the best quality and longest shelf life.

Delays in cooling translate to loss in quality and weight loss, from just over 2% loss in 1 hour to as much as 10% weight loss after 5 hours. If immediate cooling is not available, storing in shade, harvesting during cooler times of the day, and soaking with cold water are alternatives. Beans should be stored at 37°F to 45°F and 95% relative humidity. Under these conditions, they will maintain quality for 7 to 10 days. French beans are sensitive to ethylene exposure, which can cause pods to yellow, and chilling damage which opens the door to various fungi and decay, especially with damaged or broken beans.

References: North Carolina University Cooperative Extension, UC Davis Postharvest Technology website, University of Illinois Extension, USDA.

GOOD ARRIVAL GUIDELINES

Generally speaking, the percentage of defects shown on a timely government inspection certificate should not exceed the percentage of allowable defects provided: (1) transportation conditions were normal; (2) the U.S. Department of Agriculture (USDA) or Canadian Food Inspection Agency (CFIA) inspection was timely; and (3) the entire lot was inspected.

<table>
<thead>
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<th>U.S. Grade Standards</th>
<th>Days Since Shipment</th>
<th>% of Defects Allowed</th>
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</tr>
</tbody>
</table>

There are no good arrival guidelines for this commodity specific to Canada; U.S. guidelines apply to shipments unless otherwise agreed by contract.

References: DRC, PACA, USDA.

INSPECTOR’S INSIGHTS

There are no guidelines specific to French beans, these are for green beans in general:

• U.S. No. 1 Beans are required to be ‘reasonably sized’—and although there are no minimum length or diameter requirements stated, the beans may not be spindly or excessively short for the variety and cannot have been prematurely picked
• If a break occurs within the thick portion of the bean, this is a defect; the same is true if both ends are broken in the thin portion, if any break is materially affected by dirt or discoloration, if a break is ragged, or if the remaining portion of the bean is less than 3.5 inches in length
• Russetting is characterized by the death of surface cells anywhere on the pod, which then become rusty brown to chestnut brown. Browned areas are irregular in shape and without definite margins, but they sometimes occur as short, narrow somewhat parallel areas. The dead tissue is usually not sunken. A bean is scored as damaged by russetting when the defect materially affects the appearance of the bean.