



# Vegetable Gardening Hints



## Growing Beans in the Home Garden

### Lima Beans

The lima bean, also called butter bean, is a warm season crop that is well adapted to Louisiana's climate. The large-seeded types were developed in South America and received the name "lima" from the capital city of Peru. Lima beans are a nutritious vegetable, high in protein, calcium, phosphorus, iron, potassium and the vitamins thiamine and niacin.

In Louisiana, limas are planted in both the spring and fall. Spring crops are planted well after frost danger has passed. The soils should be 60 degrees F or warmer. These conditions are found in mid- to late March in south Louisiana and about mid- to late April in north Louisiana. Plantings can be made through about mid-May in most of the state. Plantings made much later than this yield poorly because high temperatures interfere with pod set. Fall crops are planted beginning in early August in north Louisiana and through mid-August in south Louisiana.

You can choose either the bush or pole beans. Pole beans mature later but produce higher yields and produce for a longer period than do bush types. For small gardens, consider pole types. They produce the largest yield per square foot and generally have fewer disease problems because of their tall form. Small-seeded lima varieties called "butter beans" are best for the South.

Recommended pole limas include Florida Speckled, Florida Butter, King of the Garden, Burpee's Best, Sieva, Christmas or Willow Leaf. Good bush limas for Louisiana include Henderson Bush, Eastland, Jackson Wonder, Baby Fordhook,

Thorogreen, Cangreen and speckled or white Dixie Butterpea. Fordhook 242 (AAS) is a large-seeded bush variety that has excellent quality but doesn't produce good yields in Louisiana's hot, humid climate. For large-seeded types, choose Burpee's Best, Jackson Wonder or Cangreen.

### Snap Beans

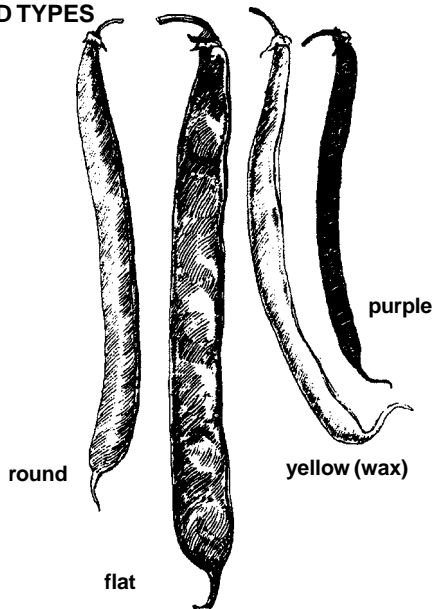
The snap bean has come a long way from the original common bean of Central America. The original beans were grown for their dry or green shelled seed. Breeding advances gave us the old "string bean" before being further developed into today's high quality snap bean. Although not as nutritious as the limas, snap beans are a well-balanced, low-calorie food.

Like the limas, snaps and other beans set poorly under midsummer heat. Because they're also sensitive to frost, plant them soon after danger of frost is past and the soil has warmed. For a continuous harvest of fresh beans, make plantings about two weeks apart until mid-May. Plant bush snap beans again in mid- to late August for a fall harvest. Quality is usually excellent in the fall.

Good bush snaps for Louisiana are Gator Green 15, Strike, Provider and Bush Blue Lake 274. All-America Selections include Derby, Green Crop (flat) and Burpee Stringless Green Pod. Roma II is a flat Italian bush bean. For a purple

pod, bush snap, try Royal Burgundy in the early spring. Those who prefer the yellow wax beans should choose Golden Rod Wax, Golden Wax or Gold Crop (AAS).

#### POD TYPES



For pole snaps, the AAS winner is Kentucky Blue. The Kentucky Wonder 191, Blue Lake and McCaslan have done well in Louisiana. For pole beans with striped pods, select Rattlesnake. For those who want a bean which sets well in the heat, try the vigorous Yardlong Asparagus Bean, and harvest pods when 18 inches or less.

### Other Beans

Minor beans or beanlike crops may also be grown in Louisiana. If beans are to be shelled green or dry, choose the large-seeded **horticultural beans** for best results. These beans were developed for harvest of their seed. They often have large and striped or mottled pods. Most horticultural beans are bush types, but pole types are also available. Culture is similar to that of snap beans. **Vegetable soybeans** have been bred for a higher eating quality than the field soybeans. They may be shelled in the mature green stage or as dry beans. Green pods will shell much easier if they are blanched for two minutes. Culture is similar to that of limas.

The **broad bean** is popular with the Italian community. Fava beans, as they are also com-

monly called in Louisiana, are a cool season crop requiring several months from planting to harvest. The plants are tall and slender, producing a fairly woody stem. The long, broad, glossy green pods are snapped and eaten green or allowed to dry for shelling and storage. Fava beans are planted in October and November and harvested in March and April of the next year. Seeds are planted 3 to 4 inches apart in rows 3 to 4 feet apart.

### Cultural Practices

Use treated seed for protection from rotting. Treated seeds are dusted with a fungicide, so wash hands thoroughly with soap and water immediately after planting. If you wish to protect untreated seed, dust with Captan 50 using 1/2 teaspoon per pound of seed or Thiram using 1/3 teaspoon. For small quantities of seed, dip the small blade of a pocket knife into the powder and lift out only as much dust as the tip will carry. Add this to a small packet of seed and shake thoroughly.

Choose a fertile, well-drained area that receives full sunlight. Prepare a good seedbed for planting. Gardens in most areas of the state will benefit by building rows up 8 to 10 inches to improve aeration and drainage. Beans cannot tolerate excessively wet soils and may wilt.

For soils of moderate fertility, use 2 to 3 pounds of an 8-24-24 fertilizer or its equivalent per 100 feet of row. Excessive nitrogen will cause the plant to become very vining and will cause blooms to drop instead of setting pods. The soil pH at which beans do best is between 5.8 and 6.8. A soil test will determine pH and the amount of lime (if required) to adjust it. Your county agent will interpret the results for you.

Bush beans are planted in rows 3 feet apart. Plant 1/2 inch deep. After plants are up (seven to 12 days), thin limas to about 3 to 5 inches apart and snap beans to 3 inches apart. A double drill of bush beans can be planted down a bed, spacing drills 18 inches apart. Use a 5-inch spacing within the row drills. This will require about 1/2 pound of seed per 100 feet of row. Do not soak or pre-sprout bean seed.

For pole beans, plant hills of two or three seeds every 12 inches apart in the row. Space these rows 3 to 4 feet apart. One quarter pound of seed will plant 100 feet of row. Soils that pack or crust

after a rain interfere with seedling emergence. You also can use Lasso and Pursuit on limas and Dacthal and Eptam on snaps. For soils of this nature, cover the seeds with a garden loam, sand, fine compost or potting soil to help seedlings emerge. Incorporate organic matter into these soils. As the plants grow, select the best one for each pole and thin the remaining plants. Position a support pole near the bean.

Supports can be bamboo poles, wires, cords, a fence, a trellis or some other item. Using corn plants for support is not a good practice because they may not be sturdy enough. Many pole varieties will grow 10 to 12 feet, so be prepared.

A good response has been obtained from sidedressing pole beans with nitrogen, especially on light, sandy soils. Young plants in the three true leaf stage (4 to 6 inches tall) can benefit from 2/3 pound (pint jar) of ammonium nitrate or its equivalent down 100 feet of row. This light dressing, applied well before flowering, will allow for a larger plant and produce more pods. Keep soil moist, especially at flowering and pod fill. Plantings that experience moisture stress will yield poorly and produce many small "pigtailed" pods.

### **Harvesting**

Snap beans are most commonly harvested in the early mature green stage. This is when the pods are first filled out but have not had time to toughen. At this stage, pods will show a slight bulge of the seeds inside but still have a healthy green color (or bright yellow for wax types).

Limas at the proper stage for harvest (mature green and bulging) will be much easier to shell than the immature ones. Pods may also be picked younger but should be at least 2/3 filled out. For fresh use, it's better to pick a little early than a little late!

When harvesting, you may need to use two hands: one to support the stem and one to pull the bean. Otherwise you may pull off a whole branch while removing some pods.

Be sure to remove all pods that are ready or overmature. Leaving even a few overmature pods on the plants will greatly reduce their productivity. For fresh use, you'll need to pick every few days.

### **Pest Control**

Bean roots grow near the surface, so use only shallow cultivation. Hand-pull weeds near the plants. Herbicides that can be used on beans include Basagran, Dual, Treflan, Prowl, Poast and Roundup. Read the labels, and contact your county agent for information on application.

The Mexican bean beetle is a sure visitor in all unprotected gardens. The copper-colored adults (16 black spots) and yellow, fuzzy larvae skeletonize the pods and leaves.

A common disease problem, anthracnose, occurs during wet conditions. On the pods, it causes reddish-brown, sunken spots with pink centers. Stems and leaf veins develop elongated dark-red cankers.

Many beans develop root rots. These result in "damping off" of young seedlings. Root rots may cause lesions and root pruning of older plants. Most root rot fungi overwinter in the soil.

Read all labels before applying pesticides. Using these materials properly will benefit you, your crops and the environment. Proper timing, application and the amount used are essential for the safe use of pesticides.

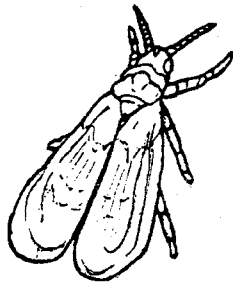
If possible, keep out of the beans when the plants are wet with dew; disease is easily spread under these conditions. Insect pests, if left unchecked, will destroy your beans.

For additional information, contact your county agent.

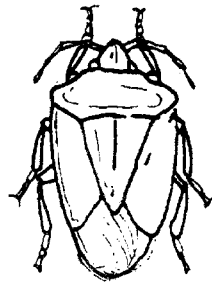
### **Acknowledgments**

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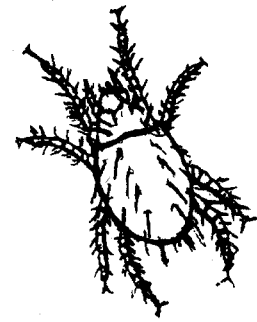
Whitefly



Stinkbug



Mexican bean beetle



Spider mite

Pest	Pesticide	Rate per gal. water	Days before harvest	Application
<b>Insects</b>				
Whitefly	Thiodan 50 WP	3 Tbsp.	3	
Stinkbug	or			
Leaf feeding beetles	Sevin 80% WP	2 Tbsp.	0	As needed; weekly after pod set.
Aphids	or			
	Malathion 5 lb. EC	2 Tbsp.	1	
	or			
	Orthene 75S	2 tsp.	14	Orthene not for beetles.
Spider mites	Kelthane 18.5% EC, 35W	1 1/2 tsp.	7	Don't use treated vines for feed.
	or Dimethoate 267	1 1/2 tsp.	0	
<b>Diseases</b>				
Anthracnose	Fixed Copper	As Directed	0	5- to 10-day intervals.
Powdery mildew	or			
or bacterial blight	Copper oleate	As Directed	0	
Rust	Chlorothalonil	As Directed	7	
Root rot	Terraclor 75% WP	1 Tbsp./84 ft.		In furrow before seeding.

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