



Dr. Martin Pole Lima Bean **Pre-Planting Germination Procedure**®

During germination the large size of Dr. Martin seeds makes them particularly vulnerable to soil borne fungus and rot, especially during cool or wet weather. Pre-planting germination helps protect germinating seeds from rot organisms during this critical time.

1. Take two paper towels. Lay one on top of the other and saturate with tap water.
2. Pour seeds onto the towels. Spread the seeds into a single layer.
3. Saturate two more towels and place on top of the seeds.
4. Put the towel-seed-towel sandwich into a large plastic food bag. Fold the ends of the bag over, but **DO NOT** make the bag airtight.
5. Set the bag out of direct sun, but at room temperature. The seeds will begin to absorb water from the saturated towels and start to germinate.
6. After one day, check the bag for moisture. If the towels do not feel wet, add some water, but **DO NOT** let the seeds lie in a puddle. During the first 24 to 48 hours the seeds absorb enough water to swell 2 to 3 times their dry size.
7. After 3 days small roots should be visible on some seeds. **DO NOT ADD MORE WATER UNLESS THE TOP TOWELS ARE NOT MOIST.** At this stage the seeds are fully swollen and need only enough moisture to keep them from drying out. Rooted seeds may be planted into the garden at this stage, but better results are obtained if planting is delayed an additional three to five days.
8. After the seeds are well germinated, plant them in the garden so that the back of the seed just shows at ground level. It is helpful to split or remove the seed coat at this point. This lets the new leaves expand easily. Keep soil moist, but not wet. Plants should become established in about five days at soil temperatures above 65°F.

Dr. Martin Pole Lima Bean Seed

Dr. Martin Pole Lima Bean Seed planted about mid-May should begin to yield about mid-August. The fresh beans are especially large with a tender green skin. We suggest picking them before they are fully mature and cooking them lightly in a pressure cooker with a minimum of water to preserve their color and nutty flavor.

Beans are legumes and require a well drained soil. They appreciate an annual application of ground dolomitic limestone. They may be fed with a general purpose fertilizer such as 5-10-5. Well aged compost is helpful, but fresh manures will promote severe seed and stem rot.

Plant only after the ground has warmed. Beans sprout best at soil temperatures above 65°F. For best germination results see the germination method on the other side of this sheet. Shallow planting is best, with the "eye" down. Ours are planted so that the back edge is just at the soil surface. Seeds can be started in the house or cold frame and put into the garden after all frost danger is past.

The possibility of fungal attack during germination can be reduced by planting the seeds in a small depression filled with washed cement sand or vermiculite. These materials are sterile and will serve to keep disease organisms away from the seed during germination.

Seed corn maggot attack on newly planted seed or seedlings can be minimized by use of over-the-counter insecticides sprayed on the seeds and surrounding soil.

Dr. Martin bean plants grow about 12 feet long and throw off laterals from the bottom to the top. We support our plants with binder twine strung from a top wire run between 6 to 7 foot high posts. We prefer to plant in rows spaced a minimum of 8 feet apart. The bean plants are spaced 2 to 3 feet apart within the row. They produce better if the developing pods can get sunlight. Bumblebees (the major pollinator) work best in light airy rows, and good air movement minimizes fungal disease.

Bean beetle is the most serious pest during the growing season. Use over-the-counter insecticides as directed on their package to control them. Insecticides are best applied at dusk to avoid insecticidal poisoning of pollinators.

HAPPY PLANTING!