



# How-To: TESTING SEED VIABILITY

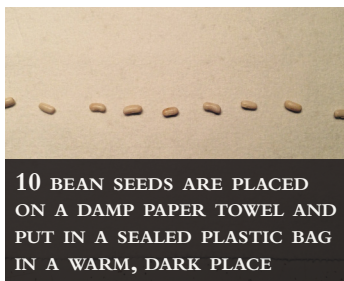
*Will your seeds grow? If you've got seeds left over from other years, you may be wondering if they'll still "work" this season. Try out a simple seed viability test to see what percentage you can expect to sprout.*



## STORING SEEDS

Seed storage times vary with different types of seed, and it makes a difference how the seeds were stored. The best way to store seeds is in cool, dry, dark conditions. We recommend putting seeds in a tightly sealed container or bag, and storing them in the refrigerator or freezer. When you get seeds out to use them, be sure to keep them out of the sun and don't let them get wet. Put them back into storage as soon as possible. Seeds that are exposed to heat, light, and high humidity lose their viability quickly.

If you're unsure what the storage conditions were or whether they were good enough, try testing your seed with the germination test below. It can save a lot of time and aggravation if you check to make sure your seeds will grow before testing them in the garden!



10 BEAN SEEDS ARE PLACED ON A DAMP PAPER TOWEL AND PUT IN A SEALED PLASTIC BAG IN A WARM, DARK PLACE



AFTER A WEEK, MANY SEEDS HAVE GERMINATED, PUSHING ROOTS OUT OF THEIR SEED COATS



9 OF 10 SEEDS GERMINATED, (90% GERMINATION) SO THE BEAN SEEDS ARE STILL VIABLE AND CAN BE PLANTED AT THE RECOMMENDED SPACING

## GERMINATION TEST

- Place 10 seeds in a sealable plastic bag with a wet paper towel folded over them.
- Put the bag in a warm, dark place (except for lettuce seeds, which should be placed in the light).
- Check daily for germination.
- Begin checking germination around the beginning of the expected days to germination for the crop (see chart on second page). As long as seeds continue to germinate, wait to count total germination. At the end of the expected germination days range, or when all seeds have germinated, count the total number of seeds that sprouted.
- Divide the number of seeds that sprouted by 10 to determine the germination rate.

If the germination rate is very low (much lower than 50%), it's probably best to buy new seeds. If the rate is moderate (around 50-70%), simply sow seeds more heavily than recommended.



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## EXPECTED DAYS TO GERMINATION

<i>Crop</i>	<i>Days</i>	<i>Crop</i>	<i>Days</i>	<i>Crop</i>	<i>Days</i>
ARUGULA	3 - 8	CUCUMBERS	3 - 10	PUMPKINS	5 - 10
ASPARAGUS	7 - 30	DILL	7 - 21	RADISHES	3 - 7
BASIL	4 - 10	EGGPLANT	7 - 14	SAGE	10 - 21
BEANS	6 - 14	LEEKs	10 - 14	SWISS CHARD	5 - 10
BEETS	5 - 15	LETTUCE	7 - 14	SPINACH	5 - 10
BROCCOLI	5 - 10	MELONS	7 - 14	THYME	14 - 28
BRUSSELS SPROUTS	5 - 10	OKRA	6 - 18	TOMATOES	5 - 10
CABBAGE	5 - 10	ONIONS	10 - 20	TURNIPS	3 - 7
CARROTS	14 - 21	OREGANO	7 - 21	WINTER SQUASH	4 - 10
CAULIFLOWER	7 - 10	PARSLEY	10 - 30	WATERMELON	4 - 12
CELERY	14 - 21	PEAS	9 - 13	ZUCCHINI	4 - 10
CHIVES	7 - 14	PEPPERS, HOT	7 - 30		
CORN	7 - 14	PEPPERS, SWEET	7 - 14		

## AVERAGE LENGTH OF VIABILITY

Here are the average times, in years, that seed can be stored under good conditions and still remain viable:

<i>Storage Time</i>	<i>Crop</i>
1 YEAR	ONIONS, LEEKS, PARSLEY
2 YEARS	CORN, OKRA, PEPPERS
3 YEARS	ARUGULA, ASPARAGUS, BEANS, BROCCOLI, CARROTS, CELERY, PEAS, SPINACH
4 YEARS	BEETS, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, CHARD, EGGPLANT, FENNEL, KALE, PUMPKINS, RADISHES, SUMMER SQUASH, TOMATOES, WATERMELONS, WINTER SQUASH, ZUCCHINI
5 YEARS	COLLARDS, CUCUMBERS, KOHLRABI, LETTUCE, TURNIPS