

| Plant Name | Scientific | Common | Family | Date Reviewed 03/24/20 |
|---|------------|---|------------------------------|------------------------|
| <i>Crambe maritima</i> | | Sea Kale | Brassicaceae | |
| Propagation Method | | Native to | | |
| Seed or Root cuttings | | European coasts - North Atlantic to Black Sea | | |
| Treatments (Suggested procedures) | | | | |
| From Seed | | | | |
| <p>Unlike most Brassicas, <i>Crambe maritima</i> has germinated well using a moist warm (70 degrees F.) stratification in potting soil for about 90 days then a cool stratification at 40 degrees F. for 90 days then back into the 70 degree area. If germination begins under cool stratification, move the flats back into the 70 degree area to finish germination. NOTE: recent germination tests at Timberline Gardens involved cracking the outer husk of the seed (but not removing it), sowing it in seedling mix and placing them on 72 degree F bottom heat at the edge of mist. Germination occurred in about 2 weeks. The constant heat seemed to help with consistency.) Transplant before rootbound to prevent stalling.</p> | | | | |
| <p>From Brian Core, Little Valley Wholesale Nursery: I found a method to drastically improve germination in <i>Crambe maritima</i> seeds. They typically germinate poorly because they have a relatively impervious seed coat that is saturated with germination inhibitors. Kelly Grummons was able to improve germination by cracking the seed coat, but that method did not work well for me. Theoretically, removing the seed coat would work, but would be too labor intensive. I tried various cold/moist stratification regimens, and was only able to achieve slight increases in germination percentage.</p> | | | | |
| <p>I found an abstract of an article online that nudged me in the right direction: L. Fusheng, J. Peron, and N. Blanchard, "Effect of Different Pre-Treatments to Overcome the Dormancy of Seakale (<i>Crambe Maritima</i> L.) Seeds (ISHS Acta Horticulturae 467: III International Symposium Diversification of Vegetable Crops).</p> | | | | |
| <p>The article states that: 1) removing the seed coat improves germination. 2) soaking seeds in a 0.025% solution of GA for 18 hours had the best effect on germination, and 3) soaking in bleach for 5 minutes also helps improve germination.</p> | | | | |
| <p>I tried my own version of 2), and it worked very well. There are two readily-available products that contain GA: Pro-Gibb and Fascination. Fascination is a 1.8% solution of GA that also contains BA, which is a cytokinin. I calculated that I would have to use 6.94 ml of Fascination in a 500 ml beaker to get the right concentration. I don't really have the equipment to measure small quantities accurately, so I winged it. A teaspoon is about 5 ml, so 1.5 tsp. in 500 ml (about 1/2 quart) would at least be in the right range. I tried it without cracking the seed coat or soaking in bleach, and was happy with the results. Use warm (not hot) water and soak for 18 hours. Look for germination to start after about a week and continue over a period of 2-3 weeks.</p> | | | | |

From Root Cuttings

Crambe maritima can also be propagated by root cuttings. At the Denver Botanic Gardens, we have had success taking root cuttings from a plant grown in a #1 container. The plant is removed from the container, excess media is shaken out, and cuttings of 3-6 cm in length are harvested from roots with diameters ranging from .5-1 cm. In an open flat, the cuttings are sown on top of a layer of soilless media. The cuttings can be densely placed and are covered lightly with the same soilless media. Cuttings should be kept moist and will react positively to being placed on a bench with intermittent misting. In two to three weeks, you should see growth of stems and leaves. In about five weeks, these plants are ready for transplanting.

Collection Timing and Strategies

Collect seed as seed capsules turn from green to gold in August or September. Let them finish drying in paper bags. Long term storage not known

Cultural Information

Greenhouse conditions

Transplant seedlings into finished sized pots (i. e. 4.5 inch or #1 sized pots) when they have 3-5 leaves. Grow on at 60-75 degrees F. until roots reach the bottom of the pot. At this point move them to a cooler growing house or area for conditioning (45 degrees at night and 50-60 degrees day). Slow release fertilizer at transplant is recommended or constant feed at 250 ppm N.

Garden conditions

Full sun for best results. Tolerant of lean clay soils or loamy soils. Plant more than one plant for better seed production. Watch for cabbage loopers (Lepidoptera) which can damage foliage and flowers. This plant can be grown under moderate to very dry conditions. I estimate Zones 4-8.

Other Expert Advice

Seed capsules contain one seed. The hull is dense and labor intensive to remove. We crack the hull with pliers and remove the seed. Removing the hull may not be necessary.