



Growing the Spice, Coriander

by

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Several years ago, we were approached by a local food company who wanted to make an all Alaska-grown product. They wondered if coriander (*Coriandrum sativum*) could be grown for seed. Most gardeners are familiar with cilantro, the leafy, celery-like vegetable used in a variety of ethnic dishes from Asian and Mediterranean cooking to Latin American cuisine. Although coriander and cilantro are the same plant, and cilantro can go to seed in the garden; the coriander, as a spice, is selected specifically for the type and concentration of essential oils in the seed. The plant is a member of the Apiaceae family along with carrots and dill and produces a hard, round, mustard-like seed. When ground, the seed adds a distinctive citrus flavor to foods. Seeds are sold whole or in a powdered form. We learned quickly that the value of the seed plummets if the hard nut-like covering is broken because the oils evaporate. Grinding is even worse for shelf life. We conducted yield trials of coriander seed in 2009 and 2010. Our biggest challenge was finding a source of seed that was for coriander the spice, not cilantro - garden catalogs simply do not carry coriander seed. We finally located seeds at the USDA North Central Regional Plant Introduction Station, Iowa State University, Ames, IA, in the national collection of seeds managed by Dr. Mark Widrlechner. He sent us seven selections whose origins included Saskatchewan, Tajikistan, Russia, Bulgaria, England and Iowa.



We seeded our coriander in the greenhouse one month prior to the last frost date (May 1) and transplanted them in rows eight inches (20 cm) apart after June 1. Since we were not sure whether the yield would be reduced substantially by our short growing season and we wished to have excellent weed control, we transplanted the coriander through IRT (infrared transparent) mulch that warms the soil and controls weeds. Based on our observations and those of local herb growers, coriander seed could probably be grown successfully without the use of IRT mulch. The plant is big and bushy, similar to dill, and the seeds mature over time. We harvested everything once, although we lost early-maturing seeds that fell to the ground.

All cultivars produced between 0.08 to 0.13 lb. per foot of row (135 - 338 g/m), and none had significantly higher yields than other cultivars in both 2009 and 2010. Our next biggest challenge was removing seeds from the plant and cleaning the

seeds from the chaff. We hand harvested seed heads, allowed them to air dry, then laboriously removed them from the seed heads. (We lost a few volunteers over this task!) We tried using some specialty seed cleaning equipment but found that we cracked open a lot of seeds thus reducing the value of the harvested crop. Next step is to take the cleaned seeds to the local food company so they can try the different selections and see which ones work the best. As most gardeners know, a cultivar can yield very well but taste awful. Our harvested seeds range from brown to pale green, a condition that might present problems in using it in foods. This same problem happens with canola seeds in Alaska. Many seeds do not mature, and therefore oil for human consumption is not possible with many cultivars. We will maintain a supply of seeds at the GBG just in case a local herb company wants to grow coriander for commercial use. At least we know we can get some seeds from our garden.

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