## LANCE-LEAF COREOPSIS Coreopsis lanceolata L.

Description: A clump-forming perennial herb with short rhizomes. Leaves may or may not be hairy; basal leaves are pinnately divided with each division elliptic, and the upper leaves are entire and also elliptic. The flower heads are borne singularly or in small groups on upright stems from April to June. They are 1-2 inches in diameter and yellow with a yellow center. The seed are dark brown, winged, and curved to almost semi-circular.

Uses: This plant is used mainly for landscape beautification. It has potential for use in cultivated, garden situations, in naturalized prairie or meadow plantings, and along roadsides.

Site adaptation: Lance-leaf coreopsis prefers full sun, but will tolerate light shade. On sites that are heavily shaded, plants produce fewer flowers and the stems grow taller. It can grow on many soil types, but prefers a well-drained soil. Natural stands are often found on dry, infertile sites.

## **Cultural Specifications**

Method of establishment: Seed or transplanted seedlings.

Planting time: Can be seeded almost any time during the growing season, but summer planting (July-September) often produces the largest stands. Transplants are planted in the spring after all danger of frost is past.

Seedbed preparation: A firm seedbed is required. Seed may be planted into a closely mowed, chemically-killed, or burned sod area with a light disking or harrowing that scratches the soil surface. When seed is sown onto a clean-tilled site, cultipacking the soil before planting is recommended. A thick layer of plant residue on the soil surface may interfere with seed germination.

Planting rate and method: Broadcast or shallowly drill 5-7 grams of seed per 100 square feet (5-7 lb/acre). Planting depth should range from at the soil surface to one-eighth inch deep. Cultipacking after planting is recommended. Seed germination should occur by fall, and the plants will remain as a low-growing rosette throughout the winter.

Greenhouse production: Seed should be planted in a greenhouse or cold frame in late winter. The potting medium should be sterile and well-drained. The seed should be lightly covered and the medium kept moist, but not wet, until germination. Lance-leaf coreopsis will produce a high percentage of filled, viable seed, so they should germinate rapidly in high numbers. After germination allow the surface of the soil to dry slightly between waterings. Transplant the seedlings into larger containers when they have 2-3 true leaves; the seedlings are fairly sturdy, which makes them easy to handle during transplanting. A weekly application of a soluble complete fertilizer is recommended. Seedlings can be planted in the field about one month after transplanting. They should be hardened-off by placing them outdoors in a shady location about a week prior to planting.

Fertilizer requirement: Apply according to soil test recommendations. If not available, a rate of 3.5-5.5 oz per 100 square feet (100-150 lb/acre) of 13-13-13 should be applied after the seedlings are established and annually thereafter.

Companion plants: Lance-leaf coreopsis grows well when planted with perennial lawn grasses and is highly suited for roadside plantings. Some suggested companion wildflowers are lyre-leaf sage, black-eyed susan, toadflax, ox-eye daisy, blue-eyed grass, purple coneflower, bachelor's button, gaillardia, and butterfly milkweed.

## Management

Mowing: The initial mowing should be delayed until mid to late May (after seed set). Lance-leaf coreopsis can tolerate regular mowing during the summer and fall. However, if the plants are allowed to regrow after the initial mowing, they will usually flower sporadically throughout the summer. A fall mowing is recommended.

Seed production: Seed will begin to mature about a month after flowering. The bracts surrounding the seed darken and they begin to spread to release the seed. When completely open, the seed falls easily from the head, and will be lost if not collected quickly. Seed can be collected by hand or large areas can be harvested with a combine.

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