

LAGOS SPINACH/QUAILGRASS

Quailgrass, Lagos Spinach, Soko, Aodoyokoto

Celosia argentea

Amaranthaceae

ECHO® PLANT INFORMATION SHEET

Origin

Quailgrass is not a grass; it is a member of the Amaranth family and shares many features with members of the genus *Amaranthus* such as broad edible leaves with high protein content and flowers and seeds produced in dense spikes. Some members of the genus *Celosia* are well-known ornamentals called "Cockscombs." Although Quailgrass is Asiatic in origin, it is heavily cultivated as a source of spinach in Indonesia and in parts of Africa today, especially in Nigeria, Benin, and Zaire. Quailgrass also may be grown with success in temperate regions.

Uses

Quailgrass is a warm weather spinach substitute. The leaves, young stems and young flower spikes are eaten. In some African cultures it is finely chopped and added to soup. The seeds are edible. Chopped plants have been used as a food source for chickens. Flowers are good ornaments fresh or dried.

Common Names

- Swahili
 - mfungu
- French
 - célosie
 - crete de coq

Cultivation

Quailgrass should be planted when all danger of frost is past. It may be direct seeded at a depth of 0.75 cm (0.25 in). Seedbeds should be well-manured and kept moist. The seedlings should be thinned to 25-30 cm (10-12 in) apart or they may be transplanted from a seedbed into the field when 5-8 cm (1-3 in) tall. The small young seedlings are vulnerable to weeds. Quailgrass often will reseed itself, requiring little care to propagate it. Quailgrass thrives in fertile soils but may tolerate dry, bare land.

Harvesting and Seed Production

Large leaves from young plants are best for eating. The first leaf harvests are made 4-5 weeks after sowing in tropical environments. The leaves, young stems, and young flower stalks may be harvested for use as pot herbs. If plants are broadcast sown the first thinning of entire young plants, about 10 cm (4 in) tall, may be carefully harvested for cooking and eating. Two or three additional thinnings over a 2-3 week period will provide more full plant harvests. First seed harvests in tropical environments may be expected 3.5 to 4 months after sowing. To harvest seed, cut off whole seedstalks after the flowers fade and place them in a bag until they are dry, then thresh. Alternatively, you can collect seed weekly by holding a container under the seed head and rubbing or tapping it gently.

Pests and Diseases

Although relatively pest-free in temperate regions, Leaf-curl damages the flower stalks and upper leaves in Nigeria. Also reported in Nigeria are the variegated locust, which attacks immature seed capsules and a beetle, *Baris planetes*, which feeds on green capsules causing seed loss. Quailgrass is moderately susceptible to nematode infection. A white rust fungus, which produces white pustules on leaf undersides, seriously damages Nigerian-grown Quailgrass. Destruction of infected plants is recommended to reduce the incidence of infection in subsequent Quailgrass crops.

Cooking and Nutrition

The leaves of Quailgrass are high in protein, vitamins A and C, and are good sources of calcium and iron like amaranths. Accumulated nitrates and oxalates in the plant parts are largely removed by the short period of boiling (5 minutes) required to make the plant material tender. The cooking water is strongly discolored by the plant pigments present in stems and leaves. Because the cooking water contains the dissolved nitrates and oxalates, it should be discarded after cooking. Long periods of boiling reduce vitamin content. The flavor of Quailgrass leaves is reportedly pleasant, very mild, and lacking the bitterness sometimes found in Amaranth leaves.