



Ivy gourd

Coccinia grandis

Cucurbitaceae

Common Names

Ivy gourd, scarlet-fruited gourd (En); tindola, courge écarlate (Fr); pepino cimarrón (Sp); 紅瓜 (Cn)

Plant Distribution

Tropical Asia, East Africa, Oceania

Botanical Features

Perennial; stem climbing or prostrate, up to 20 m long with simple tendrils, green and longitudinally ribbed when young, becoming woody at the base when old; roots tuberous; leaves alternate, simple, petiole 1-5 cm long; blade broadly triangular-ovate, 3-12 x 3-15 cm, shallowly to deeply palmately 3-5-lobed; dioecious; flowers axillary, unisexual; male flowers solitary or paired, pedicel 1-7 cm long; female flowers solitary, pedicel up to 2.5 cm long; fruit egg-shaped or oblong, 3-7 x 1-3.5 cm, fleshy, green with white stripes when young, turning scarlet at maturity, many-seeded; seeds asymmetrically pear-shaped in outline, compressed, 6 x 3 mm, margin rather thick and grooved.

3-week-old seedlings ready for transplanting



Leaves and tendrils



Environmental Factors

Light requirement: full sun; photoperiod: day-neutral; temperature requirement: hot; preferred soil type: sandy loam; tolerance: heat; sensitivity: cold; may be invasive.

Female flower with 3-stigma lobes



Female flower with 4-stigma lobes



Male flowers



Fruit



Seeds





Production Methods

System: intercropping, monocropping; planting material: 10-15 cm cuttings, seeds; planting method: cuttings placed upright or at an angle, direct sowing for shoot production; irrigation: frequent during dry spell; priority fertilizer: organic matter, nitrogen, phosphorus; crop management: a ratio of 1:10 male to female plants for fruit production, prostrating, training, staking; planting to 1st harvest: 15-20 days for shoots, 150 days for fruit; harvesting: repeated cutting of tender shoots at 15-20 cm twice weekly; yield: 35-45 t/ha of shoots from 50 weeks of harvesting, 10 t/ha of fruit.

Prostrating field production



Bundled shoots in the market



Edible Parts

Green fruit is used in soups and curries; ripe fruit used raw or stewed with other vegetables; tender leaves/shoots are eaten blanched, boiled or stir-fried, or in soups.

Health Values

Beta-carotene: high in shoots, low in green fruit, medium in mature fruit; vitamin E: medium in shoots; riboflavin: high in shoots, low in fruit; folic acid: high in shoots; ascorbic acid: extremely high in shoots, low in fruit; calcium: low in shoots and fruit; iron: medium in shoots and ripe fruit, low in green fruit; protein: 3.5-4.0% in shoots, 4.9% in fruit. Leaves contain ingredients that act like insulin.

Edible shoots



Field production with stakes and shade net

