

Habitat: Fields and vegetable gardens, nomad camp sites, inhabited areas [2–5].

Part used: Seed

Traditional Uses: The taste is bitter and the potency is hot, oily, and light. It is used for the following: treating lung and kidney fevers and joint atrophy. It increases appetite, fortifies the body, alleviates arthritis and chronic kidney diseases. It is an ingredient of the following traditional prescriptions: Arur-15, Brega-13, Givan-12, Gagol-18, Gou-9, Dajidsambo-9, Dargan-10, Dosal-22, and Sebru-16 [5–9].

Microscopic characteristics: Envelope of seed made up epiderm, mesoderm and sclerenchyma. Pod long, with flattened wings. Outer epidermis thickened, lignified. Below epidermis are seen 2–3 layers of parenchyma cells. Centre of the seed shows 1–3 layers of sclerenchyma cells [10].

Chemical constituents: Seed contains 20–33% fat [11–13], thioglycosides: 1.4% synigrin [14], glucocapprin [15], isothiocyanate: allylisothiocyanate [14], fatty acids [16].

Qualitative and quantitative assays: The following is a suitable TLC procedure to identify flavonoids: silica gel, butanol-acetic acid-water (4:1:5) solvent system, detection reagent: 1% ethanolic solution of aluminium chloride. 2–3 yellow flavonoid spots are observed under UV lamp. Total flavonoid content is determined by titration using potassium permanganate as the titrant [10].

Qualitative and quantitative standards: Loss on drying, 8–10%. Ash, 11–13%. Organic matter, not more than 1.0%. Water-soluble extractive, 10–12%. Total flavonoid content, 0.6–0.8% [10].

Bioactivities: Antibacterial [15], anti-atherosclerotic [17].