

Importance in Human Diet: Diets that contain buckwheat have been linked with lowering cholesterol and reducing high blood pressure. Buckwheat intake is associated with lower total serum cholesterol, lower low-density lipoprotein cholesterol (LDL-the form linked to cardiovascular disease), and a high ratio of HDL (health-promoting cholesterol) to total cholesterol. Buckwheat's lipid-lowering activity is largely due to rutin and other flavonoid compounds that protect against disease by extending the action of vitamin C and acting as antioxidants. Buckwheat also contains magnesium which relaxes blood vessels, improving blood flow and nutrient delivery while lowering blood pressure-the perfect combination for a healthy cardiovascular system. The nutrients in buckwheat also contribute in diabetes management. It lowers blood sugar levels and has a great ability to satisfy hunger.



Buckwheat Inflorescence



Buckwheat Plant



BUCKWHEAT

Potential crop of Gurez



Patron: **Prof Afifa S. Kamili**

Chief Editor: **Dr A.H.Hakeem**

Compilation: **Tahir Saleem, Tariq Sultan
& M.S.Trumboo**

Issued by:

Krishi Vigyan Kendra Bandipora

**Sher-e-Kashmir
University of Agricultural Sciences
& Technology of Kashmir**

Fagopyrum esculentum Moench (Buckwheat) locally known as 'Trumba' is a native of Central Asia and cultivated in China and other Eastern countries as a bread-corn. Generally it is a plant of hilly temperate regions and cultivated on marginal land under rain-fed conditions where very limited crops grow.

Botany: Buckwheat is a summer annual with rather coarse, branched stems and large, broadly arrow-shaped leaves. Flower panicles and leaves rise from the nodes, both on the main stem and branches. The inflorescence consists of large racemes with more or less densely clustered flowers. The plant begins to bloom 4-6 weeks after seeding. The flowers are dimorphic and therefore naturally cross-pollinated. Fruit is dark-brown with a pale brown triangular testa. The endosperm is white opaque and starchy as compared to cereal grain endosperms.

Seeds are pointed, broad at the base, and triangular to nearly round in cross section. They vary in size in different kinds from

about 4 mm at maximum width and 6 mm. long to 2 mm. wide and 4 mm. long. The seed consists of an outer layer or hull, an inner layer, the seed coat proper, and within this a starchy endosperm and the germ.

Cultivation practices: Buckwheat being a quick maturing species is one of the potential crops of Gurez. Buckwheat is seeded only after the ground is thoroughly warm in early summer. Plants will begin blooming in about 40 days from seeding and first seeds mature about 35 days later. Harvesting is done when a substantial part of the seed is ripe. Fields are then mowed and plants are stacked to dry before they can be threshed.

A well drained slightly acidic sandy loam soil is best suited for buckwheat. The land should be ploughed thoroughly and properly leveled. One deep ploughing followed by 2-3 harrowings is sufficient for sowing the crop. Seeds are sown in months of May and June both in lines and broadcasting. A seed rate of 20kg/ha is sufficient for optimum grain yield.

Application of 20kg N, 10kg each of P₂O₅ and K₂O per hectare preferably one day before sowing gives higher yield. Weed problem is usually rare in buckwheat due to its smothering effect and dry soil condition during the growing season. It is also a hardy crop and no serious disease or pest has been recognized in the area. The crop matures in 80-90 days. Average yield 8-15 q/ha.

Composition: The whole grain (nut) contains 65% carbohydrates, 10.3% proteins, 2.4% fat, 2.4% mineral matter, 8.6% fibre, 0.07% calcium, 0.03% phosphorus and 11.3% moisture.

Economic importance: The flour of buckwheat is used largely in pancakes, bread, porridge, soup and 'halwa'. Tender shoots are used as vegetables and the whole buckwheat grain may be used in poultry scratch feed mixtures. Flowers are a rich source of honey. The crop has soil binding ability, checks soil erosion and is also a good source of green manure.