Bhringaraj

*Eclipta alba* HASSK

**Family:** ASTERACEAE

**Common Name:**

Hindi: Bhagra, babri, bhangra, mochkand, bhrangraj, jalmagra, bhangro, jal-bhangro

Kannada: Garagadasappu, kadiggagaraga, garugalu, kaadige garike, ranjana

Sanskrit: Ajagara, angaraka, bhekaraja, bhrin, bhringa, bhringaraja, bhringarajah, bhringavha, bhrngaraja, brnga, brngaja,

Tamil: Kaikeshi, Karisha-langanni, Karisirang-kanni

Telugu: Galagara

**Distribution:**

A pantropical species found in Indonesia, Sri Lanka, India, Philippines, Nepal, Laos, Kampuchea, Pakistan, Thailand, Vietnam, Malaysia and Myanmar (earlier Burma). It is distributed throughout India at all elevations. This species is globally distributed in the Pantropics. Within India, it is a common weed in moist situations and disturbed habitats such as roadsides and wastelands throughout, ascending up to 1800 m. on the hills.

**Agroclimatic Requirements:**

It is a shade loving plant which prefers damp to wet soil. Grows on clayey soil. Red loamy soils rich in organic matter are best for its growth. The crop is sufficiently hardy and comes up well in tropical, subtropical and temperate regions. However, it prefers warm climate with a temperature range of 25°C to 35°C for its good growth and yield.
Varieties:

No named varieties in this crop.

Cultivation:

It can be propagated using seeds or cuttings.

Seed Propagation

For raising the seedlings, seeds have to be sown in the nursery beds. The nursery beds of 1x3x0.15m are raised. The soil is prepared up to a depth of 30cm and mixed with farm yard manure at the rate of 2kg/m2 and little sand. The seeds are sown in rows about 6cm apart, gently covered with soil and watered using a sprinkler.

Vegetative propagation:

Vegetatively it can be propagated by using terminal cuttings with 5-6 nodes and 10-15cm length. They are planted in the well prepared nursery beds or polythene bags.

Inputs:

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Materials</th>
<th>Per acre</th>
<th>Per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seeds (kg)</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>Farm Yard Manure (t)</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Fertilizer (kg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>P₂O₅</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>K₂O</td>
<td>20</td>
<td>50</td>
</tr>
</tbody>
</table>

Transplanting and aftercare

Seedlings are ready for transplanting when they are about 30-40 days old. Vegetative method: transplanting into the main field should be in about 4-6 weeks time (i.e when the rooting is complete) at a spacing of 30x45cms.

Irrigation and Interculture:

After transplanting, irrigation should be provided twice a week till one month and later it should be given in weekly interval depending on the rainfall and soil moisture status.
Plant Protection:

Major Insect: Nil
Major Diseases: Yellowing and leaf blight and Gall bladder

Schedule:

Spray the crop with 0.2% Mancozeb

Harvest and Yield:

The harvesting is done by plucking out the plant from the ground. The root of the plant is chopped off. The fresh wet plant material should never be heaped or packed in bags. If facility is available, the plant material should be cut into moderate six pieces to aid proper drying. Shade drying is preferred. It should be spread out.

Cost of Cultivation: Approximate cost of cultivation comes around Rs.40,000/- per hectare.

Parts used – Whole plant, seed

Medicinal Uses:

The whole plant and seeds of Bhringaraja is used in the form of oil, powder and juice to treat filariasis, boils, wound, headache, giddiness, lack of vision, indigestion, enlargement of liver and spleen, jaundice, pain in the abdomen, cough, skin diseases, skin diseases and fever.

Greying of hairs

Oil 160ml is cooked with the juice of Bhringaraja and milk 1.28 litres along with the paste of madhuka (Glycyrrhiza glabra) 40gm. This is used as snuff and applied on head to prevent graying of hairs

Rejuvenative / rasayana

Intake of powder containing Bhringaraja leaves, Black sesame, Amalaka (Phyllanthus emblica) and sugar in equal quantity acts as rejuvenative/ rasayana (10-15 gms)