

EFFECT OF DIFFERENT HARVEST SCHEDULE ON TOTAL DRY HERBAGE YIELD OF SHANKHPUSHPI [*Convolvulus microphyllus* (L.) Sieb]

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ABSTRACT

Convolvulus microphyllus (L) Sieb. locally called Shankpushpi grows widely in all types of soil except deep black and water logging soils. *Panchang* i.e. whole dried plant, is used for therapeutic purpose. Generally, it grows in wild but due to inadequate availability of quality raw material, there is need to cultivate this. A trial was conducted during 2001-02 and 03-04, to standardize the agro technology including the number of cuttings can be taken to obtain quality dry herbage yield. The results data indicated that days to cuttings and the number of cuttings influenced total herbage yield. The herbage yield was the highest when three cuttings each at every 90 days interval were taken (during both the years). Other schedules studied gave significantly less yield. The percent increase in dry herbage yield was 90.40 in pooled over one cutting at 270 DAS. The cost benefit ratio was also higher i.e. 1: 10:32. Therefore to get high herbage yield and high economic return, it is desirable to cut the crop at every 90 DAS.

Key words : Herbage, Panchang, Therapeutic, Widely
vicar, Antidiabetic, Hypolipidaemic,
Insanity, Creeper, Shankh.

Convolvulus *microphyllus* (L.) Sieb locally called Shankpushpi grows widely in all types of soils except black soil. The “*Panchang*” (whole plant) is used for therapeutic purpose. Shankpushpi is also used in all three types of vikar in Ayurveda. However, it seems that flowers are very effective. The plant is having anti diabetic and hypolipidaemic properties. The powdered drug is used as brain tonic to treat insanity (Chaturvedi *et al.*, 1995; Bhakuni *et al.*, 1996). It is also use as brain tonic for increasing memory power. The plant grows throughout the year but luxurious growth and good quality raw material (herbage/ biomass) is produced only during summer season. During winter, the growth is slow and during monsoon, the growth is luxurious but market acceptable (green) colour development is poor. However, the herbage is collected between December and May from the wild.

Plants of the Shankpushpi grow like a small creeper, spreading on the land. Small leaves observed in a acropetal successions on the both the side of the branch the length of the branch are about 0.5 m to 2.0 m commonly branches are appeared from the stem at a ground level. Branches are green in colour small hairs are observed on the branches and leaves. Flowers are developing from every exil of the leaves in a acropetal successions. Colour

of the flower is white, red and blue shapes of the flowers are like shank due to the shape of the flowers its called Shankpushpi. Flowers open in the morning in large number and close in late noon to evening, small berries are develop from the flowers, the seeds are shattered after maturity. Berries are observed during whole year except rainy season. Best period for the seed collection is April and May. Root system is taproot, depth of root is 45 – 75 cm.

With the increase in population and global awareness of ayurveda, the importance of this species is increasingly. To meet the demand and to keep the WTO norms, it is necessary to cultivate this crop.

MATERIALS AND METHODS

A field study was conducted during kharif seasons of 2001-02 and 2003-04 to assess the agronomic needs at the farm of AINRP on Medicinal and Aromatic Plants Project, Anand Agricultural University, Anand. Randomized Block Design was adopted for the study with 6 replication. Four different harvesting schedules were taken as treatment i.e. 3 cuttings, every 90 DAS, 2 cuttings every 150 DAS, one cutting at 210 DAS and 1 cutting at 270 DAS. The land was well prepared with two ploughing and adding 10 tones /ha FYM at the time of second ploughing during the last week of June. Seeds were sown in beds of 4.5 x 2.0 m at 45 cm spacing. Seed rate was kept 400 gm /ha. Seed being small in size small quantity of fine sand was mixed to facilitate sowing. Shallow