

Pigs manage the world's worst weed

Cyperus is an old Greek name for the sedges. Usually they are perennial, grass like herbs with simple stems and narrow leaves in three rows at the base of the stem. Cyperus is cosmopolitan in habit and thrives in almost all kinds of soil even under very varying conditions of moisture and temperature. In wet lands the plant is robust sometimes as high as three feet. Its roots are fibrous and clothed with bent hairs. It is one of the most noxious weeds of cultivation and its spread is so great and its ravages are so serious that in certain places, fields have been actually abandoned in despair. It occurs in 52 crops and in 92 countries.

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A single tuber produces 1900 plants and 8900 tubers per 31.6 m² within a year. If 3200 tubers are distributed uniformly over one hectare of land it can produce 6.2 million plants and 2.5 tons of tubers per year. Average seed output per aerial shoot was 1.72 in May and 258 units in November. The tubers are said to be eaten boiled or toasted during times of famine. Essential oil is obtained from the tubers and used in perfumery. The stems and tubers are used in medicine as a stringent, stimulant and vermifuge as well in the treatment of bowel and stomach disorders. Applied externally to breasts, they stimulate increased secretion of milk.

Management

The weed reproduces itself in two ways, through the nuts and through the underground stems. Usually not much attention is paid to the seeds. This may be due to the fact

that the production of seed can be easily checked. Before the flowering time or at the first appearance of the inflorescence, the flower stalks should be chopped off. If there is no crop in the field during the flowering time, ploughing is highly recommended to remove the aerial branches along with the flower stalks. The weed is extremely troublesome in paddy lands in which puddling cannot be properly done for want of good supply of irrigation water or in lands in which the supply fails after transplanting because the weed comes up in large numbers when the field begins to get dry and chokes up the crop. Weeding is impracticable in such conditions as the soil is hard.

Since nut sedge is a perennial weed, normal methods of weed control are not applicable including the application of herbicides. The failure of herbicides is mainly due to poor translocation and the dormant nature of the tuber. The usage of higher doses of herbicides is not feasible because of the high cost and the poisoning of the crop itself.

Use of pigs

In certain parts of Tamil Nadu, where rice is grown traditionally, farmers are effectively

managing the nut sedge problem by using pigs. Pigs are not reared by all farmers and many used to hire pigs free of cost. According to local custom, rearing pigs is not socially acceptable for all. Only certain groups of people rear pigs. The pigs are of a local breed, dark black in colour. They are fed with market waste like cabbage and allowed to collect the tubers in the waste lands. Since the tubers are succulent and sweet in taste pigs are very fond of them. Nut sedge tubers are very nutritious food for pigs. They increase body weight and milk production. Pigs can easily remove the tubers even when the soil is hard. If the soil is wet and ploughed, it will be even more easy for them to remove the tubers. Usually the field is soaked with water and puddled well when the animals are allowed to collect the tubers. Puddling will bring out the tubers buried in deeper layers (around one foot) and makes collection easier. Each animal can collect 2 to 4 kg of tubers in one day. Twenty-five to thirty animals per acre can remove the available tubers within a day. Farmers around Virudhasalam village report that they practise this method every year before planting rice. They found that the weeds were under control. Purple nut sedge can thus be managed effectively without any harm to nature and without additional weeding cost.

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