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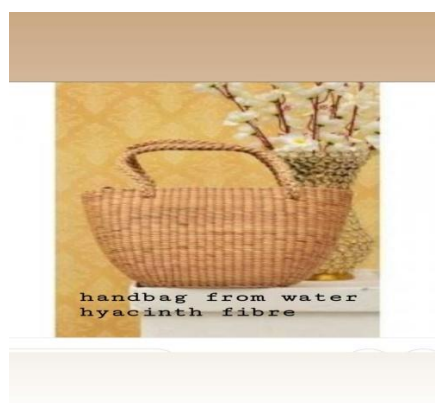
WATER HYACINTH- A Low cost and Natural pollution reducing agent

Eichhornia crassipes, commonly known as “common water hyacinth” is probably the fastest growing plant. We have always heard that water hyacinth causes numerous problems like clogging rivers, killing fishes due to oxygen depletion, etc. But many of us are unaware of the beneficial aspect of the plant and its numerous uses.

Heavy metal poisoning is a growing concern in many parts of our country. Exposure to chromium is toxic to humans even in small amounts; chromium affects liver, kidney, lungs and the nervous system. A new method for removing

chromium-6, a highly toxic heavy metal from waste water has been developed by a group of scientists from India and Ethiopia. They claim it to be a low-cost and safe technology. In this study, water hyacinth was made into powder and then mixed with water containing chromium-6. The powder was allowed to settle down and after 2 minutes, the supernatant liquid was removed and analyzed for chromium-6. For every litre of water, only 0.4 g of powdered water hyacinth is required to reduce the amount of chromium-6. It can also absorb heavy metals like Pb, Cd, Zn and Cu.

Element (mg kg ⁻¹)	Plant part	
	Shoots	Roots
Aluminum (Al)	305.4 -521.0	2656.0- 7518.0
Barium (Ba)	28.8- 39.6	42.0- 92.6
Cadmium (Cd)	<0.001	<0.001
Chromium (Cr)	2.1-16.2	9.8- 28.8
Cobalt (Co)	<0.003	1.8- 6.6
Copper (Cu)	51.6- 191.8	62.2-244.2
Iron (Fe)	247- 402.0	2370- 6402
Lead (Pb)	<0.003	<0.003
Manganese (Mn)	341.8- 471.8	496.8- 2226
Nickel (Ni)	8.6- 13.8	10.6- 26.4
Zinc (Zn)	18.6- 39.2	20.8- 56.8



Other uses of water hyacinth are:

1. As a Fertilizer: A large quantity of inorganic nitrogen and phosphorus

accumulates in the roots which makes it suitable as a compost or inorganic fertilizer.

2. As a Food: Local people who live along ponds pluck baby leaves and stalks of water hyacinth and cook them with meat in a curry.

3. As a Fibre for Clothing and domestic uses: It produces large quantities of seeds, which are viable up to 30 years. The common water hyacinth is a vigorous grower. These can be blended with polyester to make clothing and domestic textiles. Using these bags will also reduce pollution.

1. As a medicine: (a) Treating eczema: leaf extracts of the plant with rice, flour and turmeric can be used for treating skin problems like eczema.

(b) Treating cholera: the stem of this plant can be used to treat cholera. Symptoms like nausea and vomiting can be reduced with the help of stir-fried hyacinth beans. It can also be used to treat snake bites, and for healthier digestion and to control cholesterol.

Noting down all the above uses of water hyacinth, it may be concluded that instead of trying to reduce the growth of this plant, we should focus on its useful aspect and try to derive maximum benefit out of it.