CASSIA OCCIDENTALIS A NATIVE PLANT TO CONTROL *NOXIOUS PARTHENIUM* WEED

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Biological invasion by alien species is now recognized as one of the major threats to native species and ecosystems, yet awareness of the problem is alarmingly low. They are the second greatest threat to native species; besides habitat destruction. *Parthenium hysterophorus L*., an alien invasive species, is widely spreading through out Pakistan. Worldwide it has been designated as one of the most troublesome weed. The adverse effects of *P. hysterophorus* on human beings, livestock, crop production and biodiversity are well documented. The literature is rapidly mounting on hazardous effects of *P. hysterophorus* on human health. Prolonged skin contact with this weed can result into an allergenic egzematous dermatitis, while inhalation of pollen can cause allergenic rhinitis which can develop into bronchitis and asthma, if the pollen enters the respiratory track during mouth breathing (Tower & Subba Rao, 1992). In Islamabad, many other plants have already been labeled to be culprit behind the pollen allergy and high fever. *Brossonetia papyri* era Vent. along with some grasses are considered as the main allergy causing agents in twin cities. Heavy infestation of *P. hysterophorus*, which has also been proved to be an allergy causing plant, poses a serious threat to the inhabitants of the twin cities. Ever since this weed had become a menace in different parts of the world, several methods have been recommended in containing the growth of *P. hysterophorus*. However none of these appear to be satisfactory, as each method suffered with one or the other limitations such as inefficiency, high cost, impracticability, polluting the environment, temporary relief etc. Phytosociological survey of Islamabad and Rawalpindi revealed that *C. occidentalis* is replacing *P. hysterophorus* gradually in patches, Therefore, *C. occidentalis* was selected as botanical agent for control of *P. hysterophorus*. Aqueous extract of *C. occidentalis* in different ratios were applied to check the germination and early growth of *P. hysterophorus*. Results revealed that germination and early growth was significantly suppressed in with increase in concentration of *Cassia* extract. In present study, aqueous extracts of *C. occidentalis* at different concentrations showed least germination of *P. hysterophorus* and a significant gradual depression in biomass production was noted. *C. occidentalis* and *P. hysterophorus* both are competitive weeds of wastelands. In view of health hazards and likely threats to biodiversity due to *P. hysterophorus*, it is probably advisable to promote *C. occidentalis* growth (Cultural control), which is harmless medicinal plant in *Parthenium* infested areas.