



## Need of Control on Carrot Grass in India

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## ABSTRACT

Carrot grass has been rapidly spreading from the last two decades. It is a deadly weed infesting cropped and non-cropped areas, rapidly covers the new surroundings and poses a serious threat to our environment. This weed causes health problems in humans and animals. There are various options for the management of carrot grass but none has been found to be completely effective due to its presence throughout the year in varied climate, high reproductive rate, small and light weight and adaptability to survive in extreme climatic conditions. The manual removal is effective if adapted before flowering. Community efforts involving all sections of the society are needed to manage the carrot grass. Present study is focused on increasing area of agriculture land captured by this weed and loss of crop production due to its spreading.

**KEYWORDS :** Carrot Grass, Congress Grass, Crop Production

## Introduction:

Carrot grass is also known as congress grass, gajar ghas. It is native to the American tropics; other names are Santa Maria, Santa Maria feverfew, White top weed, Famine weed, and Congress weed. It is a common invasive species in India, Australia and parts of Africa. In India, it is found abundantly in Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, Karnataka and Maharashtra. Its botanical name is parthenium hysterophorus which is flowering plant of family asteraceae. First appeared as an invader as a contaminant in imported wheat.

Carrot grass is a tall growing, deep rooted, much branched plant having a meter height at fully flowered stage. The weed bears numerous small white flowers aggregated together. At maturity its fruit have numerous seeds. This weed grows along road sides, railway tracks, uncultivated lands, waste lands, in industrial area on the side of open drainage system and irrigation canals besides invading agricultural crop fields.

Initially this weed occupied largely non crop areas such as wasteland, open forests and road sides. Now the weed has invaded millions of hectares across the country including crop land, waste land and forest areas at an alarming rate. It spreads through the plant's seeds which are carried by wind, water, animals and humans. It is difficult to control its spread as the plant germinates exceedingly fast and a single plant can produce up to 25000 seeds.

Carrot grass is one of the biggest problems for farmers. It grows well in all types of soil and now it is adapting to all types of climate too. Now it finds in hill stations, in cities and towns. Nearly 4.25 million hectares are under threat from the deadly this weed. It reduces production of crops from 40% to 90% of yearly production. It also reduces grazing area of live stock. The weed releases growth inhibitors in the soil which suppresses growth of other herbaceous vegetation in its vicinity.

It produces chemical that suppress crop and pasture plants and allergens that affect humans and live stock. It causes pollen allergies. This weed is considered to be a cause of allergic respiratory problems, asthma, bronchitis contact dermatitis, mutagen city in human live stock.

Congress grass has been found to be pharmacologically active as analgesic in muscular rheumatism, therapeutic for neuralgia. It is used in many medicinal threatens of skin inflammation, rheumatic pain, diarrhea, urinary tract infections, dysentery, malaria and neuralgia. The decoction of plant used in traditional medicine to treat fever, neuralgic disorders.

## Objective of Study:

- To find area captured by carrot grass year wise
- To find loss of crop production because of carrot grass year wise

## Hypothesis:

There is a significant increase in area captured by carrot grass year wise

There is a significant increase in loss of crop production due to carrot grass year wise

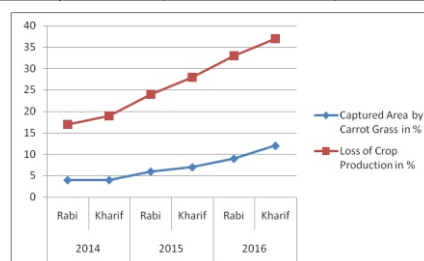
## Methodology:

A sample of 500 farmers from 10 villages of Jabalpur district of M.P. state was used for present study. They were interviewed using a self prepared questionnaire. Their land was observed to find captured area by carrot grass. Data regarding crop production was collected. Captured area and production loss related data was tabulated year wise, converted into percentage and comparatively analyzed.

## Finding and Analysis:

**Table: Status of Captured Area and Crop Production Loss due to Carrot Grass**

Year	Crop	Captured Area by Carrot Grass in %	Loss of Crop Production in %
2014	Rabi	4	17
	Kharif	4	19
2015	Rabi	6	24
	Kharif	7	28
2016	Rabi	9	33
	Kharif	12	37



**Chart: Status of Captured Area and Crop Production Loss**

Data indicates that year wise captured area by carrot grass is increasing. Hence, hypothesis 1 there is a significant increase in area captured by carrot grass year wise is accepted. In the year 2014, in study area 4% land was affected by carrot grass during rabi and kharif crop. In the year 2015, area increased 6% for rabi and 7% kharif crop. In 2016, affected area was 9% for rabi and 12% kharif crop.

Crop loss related data shows that in 2014, loss of crop in rabi season was 17% and in kharif season 19%. In 2015, loss of crop production was found 24% and for kharif crop loss was 28%. In 2016, rabi crop loss calculated as 33% and kharif crop loss as 37%. Thus hypothesis 2, there is a significant increase in loss of crop production due to carrot grass year wise is accepted.

**Conclusion:**

It can be concluded that congress grass is a terrible weed posing threat to biodiversity, crop yield; human and animal live stock health in India. Therefore, it is necessary to control the growth and spreading of this weed by employing all possible control methods to avoid its harmful effect.

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