

**Study of The Vishaghna Property of Nirgundi on Pesticide Sprayed Cauliflower****Dr.Snehal Diwakar Gawai,**Assistant Professor, Agad tantra Dept.  
CSMSS Ayurvedic Mahavidyalaya, Aurangabad**Abstract :**

Vegetables are important part of a healthy diet. Cauliflower is a vegetable which is rich in nutrients and is commonly consumed in Indian household. It is also frequently sprayed with pesticides. And even after washing with tap water, most of the residue remains on the vegetable. So there is need to wash the vegetable with solution like Nirgundi Kwatha which may reduce toxic residues.

**Keywords :** Cauliflower, Nirgundi Kwatha, Pesticide residues

**Introduction:**

Agad Tantra is the branch of Ayurveda which deals with the diagnosis, symptoms and treatment of poison and the methods of detecting them. In this new era, it also deals with the study of variety of chemicals such as pesticides, preservatives etc. and their hazardous effects on human health.

Now days, the crops are sprayed with pesticides. But its indiscriminate use leads to problems such as toxic residues in food materials. When human beings consume this toxified food materials, they become victim of their poisonous effects. So there is need of washing and cleaning the fruits and vegetables with such solution which may nullify or reduce toxic residues.

Charakacharya has mentioned Vishaghna Gana. Sindhuvaar i.e. Nirgundi is one of them. It is also mentioned as Krimihara. Cauliflower is commonly consumed in Indian household. It is generally attacked by Diamond back Moth Insect, so it is usually sprayed with Chlorpyrifos pesticide. So a study was planned to observe whether the toxic residues are nullified or reduced after the Dhavana of Cauliflower with Nirgundi Kwatha.

**Aim and Objectives:****Aim:**

To study the Vishaghna property of Nirgundi on Pesticide sprayed Cauliflower.

**Objectives:**

1. To study the Vishaghna property of Nirgundi on Pesticide sprayed Cauliflower.

2. To analyse the pesticide residues sprayed on Cauliflower before and after Dhavana with Nirgundi Kwatha.

**Material and Methods:**

**Type of study** – Observational Analytical study

**Material:**

The following materials selected and authenticated for the study.

Vegetable : Cauliflower

Dhavan dravya : Nirgundi Kwatha

**Methodology :**

Nirgundi collected and authenticated and cauliflower personally collected from one farm source.

- They were divided into 3 groups each containing 10 samples of Cauliflower
- Group A: 10 samples of Cauliflower were analysed as it i.e. without Dhavana.
- Group B: 10 samples of Cauliflower were analysed after Dhavana with Tap water.
- Group C: 10 samples of Cauliflower were analysed after Dhavana with Nirgundi Kwatha.

**Preparation of Kwatha :**

The preparation of Nirgundi Kwatha was done as per the procedure mentioned in Sharangdhara Samhita madhyam khanda adhyay 2.

**Analytical test :**

Multi residue method for pesticide analysis – Gas Chromatography-Mass Spectrometry were performed.

**Observation:**

Observations of Pesticide residue analysis

Sample nos	Sample A (mg/kg)	Sample B (mg/kg)	Sample C (mg/kg)
1	0.014	0.006	BLQ i.e.0.001
2	0.012	0.008	BLQ
3	0.014	0.006	BLQ
4	0.013	0.007	BLQ
5	0.013	0.008	BLQ
6	0.015	0.006	BLQ
7	0.012	0.008	BLQ
8	0.013	0.007	BLQ
9	0.014	0.007	BLQ
10	0.012	0.006	BLQ
<b>Mean</b>	0.0132	0.0069	BLQ

**References:**

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**Conclusion :**

1. The study was analytical observational study
2. The mean values of cauliflower before Dhavana were found to be 0.0132
3. The mean values of cauliflower after Dhavana with Tap water were found to be 0.0069
4. The mean values of cauliflower after Dhavana with Nirgundi Kwatha were found to be BLQ. BLQ means below the level of quantification i.e. 0.001.
5. After Dhavana of pesticide sprayed Cauliflower in Nirgundi Kwatha, it was observed that the residue levels were decreased to such extent that it was not even detected.
6. So it can be stated that Nirgundi possesses Vishaghna property which reduces concentration of pesticides.