

# The Pharma Innovation



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## Status of cucumber seed used in the polyhouse in Jaipur district, Rajasthan

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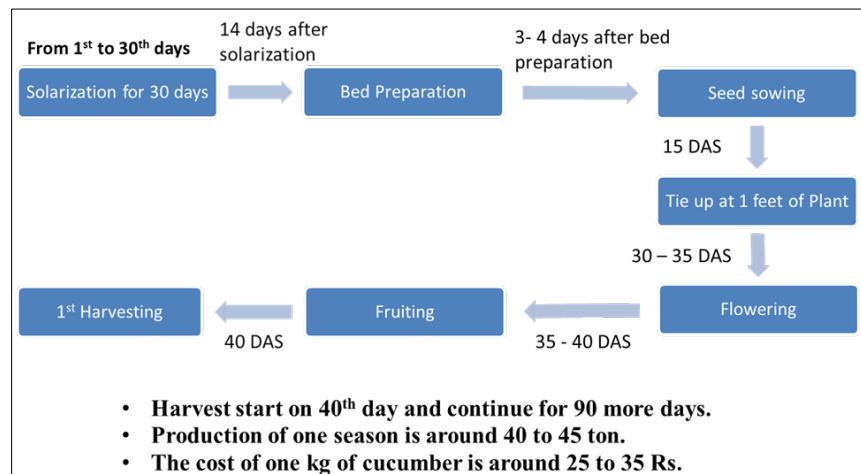
### Abstract

Cucumber is cultivated in almost every part of the country. It belongs to the Cucurbitaceae family. Since ancient period is used as a medicinal purpose. It is either consumed raw as a salad or it can be used as a vegetable. It is generally consumed in summers as it contains 96 per cent of water. Practice of growing cucumber in polyhouse is adopted worldwide. Sandy loam soils having good drainage with a pH of 6.5-7.5 are most suitable for cucumber cultivation. Although it can be grown in a variety of soil but the soil with good organic content is most suitable. Optimum relative humidity for cucumber cultivation under poly house is 85 percent. Around 200g (8000 in number) of seed is used for one acre production of cucumber in polyhouse. Various nutrient and chemicals are provided to the crop as per requirement. Different types of seed with different prices and for different season are available in the market. So the current study focus on the involvement of different companies that are popular in certain region of Rajasthan for cucumber cultivation in polyhouses. The study also reveals the varieties that are suitable to a particular season and various costs associated with it. So for current study Bobas and Bassi were the two selected regions to meet the objective of the study.

**Keywords:** Cucumber, seed, polyhouse

### Introduction

Cucumber is most common used for salad purpose in almost every Indian household. Mostly it is consumed in summer season due to excess water content in it. In summer season it can be seen selling on stalls on per piece bases system otherwise mostly it is sold in kg. In market we generally see two varieties of cucumber; one is sold as local cucumber and other one as polyhouse cucumber. To grow cucumber under polyhouse conditions a certain and systematic process is followed which start with soil solarization. This process is done by heating the soil up to a certain temperature under sunlight for around 30 days. This process is done to kill the nematode and pathogens in the soil. Then after 14 days of solarization, bed preparation is done to sow the seeds. After 15 days of sowing when plant reaches to a height of around 1 ft. then it is tied with ropes so that it doesn't bend. Flowering starts around 30-35 days after sowing, thereafter fruiting in 5-6 days. On an average, first harvesting of cucumber is done after 40<sup>th</sup> day of sowing which last for around 90 more days.



**Fig 1:** Process of cucumber cultivation under polyhouse

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Current study aims to identify the various details related to the seed like quantity of seed, varieties of seed, companies involved, and cost of seed in cucumber cultivation under poly house.

### **Research methodology**

To meet the objectives of the study the survey was conducted in Bobas and Bassi region of Jaipur district in Rajasthan. Bobas is a village located in Dudu Block of Jaipur district. Bobas is currently having nearly 70 -80 polyhouse's farmer. Region is having around 200 polyhouse with over 150 acre of land with only cucumber crop. Bassi is a sub-division of Jaipur district. It is approximately 30 km from Jaipur city. Bassi has 7 farmers, growing cucumber in 22 polyhouses spanning over 15 acres. The survey was conducted on cucumber crop. In total 72 farmers and 139 polyhouses were surveyed. Survey schedule was prepared to accomplish the objectives of the study and responses were recorded in respect of the visits to the polyhouses.

### **Data analysis and interpretations**

Analysis was made after reviewing total 139 schedules filled from different polyhouses from two different regions of Jaipur district

#### **1. Seed rate**

First interpretation was regarding the seed rate for one acre land which was observed near to 200 g or 8000 seeds in number. Almost all the farmers use the same quantity of seed to grow cucumber in polyhouses. Farmers use around 8 packets of seed where 1 packet weighs around 25 g or 1000 seeds in number. Thus in total 200 g or 8000 seeds are used to grow cucumber for 1 acre of polyhouse.

#### **2. Prominent seed companies**

Major company involved in selling the seed of cucumber is Rijkzwaan. This company is selling multiple varieties of cucumber based on different seasons with different prices. Other companies involved in selling cucumber are

**Table 1:** Prominent seed companies involved in selling cucumber seed

Company	Variety	Price/acre (Rs.)	Season
Rijkzwaan	Captain Star	59,200	Summer /Mansoon
	Falgun Star	60,000	Summer
	Multi Star	48,800	Summer
	King Star	48,800	Winter
	M Star	62,400	Mansoon
Nunhems	Infinity	44,800	All Season
	See green	59,200	All Season
Pahuja	Cristy	40,000	All Season

Nunhems and Pahuja. The seeds for both these companies can be used in any season. It is clear from the table that that Rijkzwaan is selling multiple varieties of seed for different season. M Star is the most expensive variety which is most suitable for monsoon season and Cristy is the cheapest variety that costs Rs. 40000 for 8000 seeds, can be grown in any season. Farmers choose these varieties based on their prices, availability, their yield and past experiences.

#### **3. Status of seeds used by farmers**

Most of the farmers are using the seed from Rijkzwaan company (123 farmers i.e. around 89%) and that too the

Captain Star variety followed by Infinity (7 farmers), Pahuja (6 farmers) and See Green variety by 3 farmers. The selection of seed is based on the previous experience of farmers.

**Table 2:** Status of seeds used by farmers

Seed	No. of poly houses
Rijkzwaan (Captain Star)	123
Nunhems (Infinity)	7
Pahuja (Cristy)	6
Nunhems (See Green)	3

#### **4. Yield**

Production of cucumber under polyhouses from one acre of land is around 40-45 ton from one season and it is sold at Rs. 25-35 at farm level depending on the demand and quality of production.

#### **Result**

The study revealed that the quantity of seeds used by the farmer for cultivation of cucumber in polyhouse established in one acre of land is 200g or 8000 seeds in number. All the farmers use the same quantity of seeds. Rijkzwaan is the most prominent seed company in the area under research study that is selling multiple varieties for different seasons. Other companies that are available in the area are Nunhems and Pahuja. Their seed is suitable to grow cucumber in any season. Among the available varieties, Captain Star is most widely adopted by the farmers followed by Infinity, Cristy and See Green. First harvesting of the crop starts from the 40<sup>th</sup> day of sowing and continue for 90 more days. Average per acre production of cucumber under polyhouse is 40-45 ton.

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