

**A Study on Constraints Faced By Vegetables Growers In Adoption of  
Improved Vegetables Cultivation Technology In Meerut District of  
Western Uttar Pradesh, India**

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**Abstract**

The present study was during year 2017-18 in Meerut district of Western Uttar Pradesh. In Meerut District twelve blocks out of these four blocks were purposively selected and each block four villages were purposively selected out of these ten respondents were selected from each village. The total sample size 160 respondents were selected and data collected to the farmers through personal interview. To know the constraints faced by vegetable growers in adoption of improved vegetable cultivation technology. It was observed that most of the farmers constraints were faced input related constraints and in the inputs majority of the farmers were faced availability of water from government resources followed by general constraints and in this maximum farmers were faced lack of knowledge about plant growth regulator, technical constraints and in this majority of the farmers were faced the storage facilities were not available in rural area and least marketing constraints in this maximum farmers were faced marketing information timely not available.

**Keywords:** Vegetables, constraints, Respondents.

## **Introduction**

Vegetables are key sources of human healthy diet. It's an important sources of nutrients, including potassium, fiber, folate, and vitamins like vitamin A, E and K. According to Indian Council of Medical Research, about 300 grams vegetables are required for an adult per day per capita. Generally 50 gram green leafy vegetables, 50 grams root vegetables, 200 gram other vegetables are to be required for an adult per day. Hence, the production of vegetables will be increased to meet out the daily requirement of vegetables. Approximately 60 kinds of vegetables concerned many families i.e. Malvaceae, leguminous, solanaceous, cucurbitaceous, cruciferous (cole crops) root crops and leafy vegetables are grown in India and the regions is tropical, subtropical and temperate. Important vegetables grown in India are tomato, brinjal, cabbage, onion, peas cauliflower, okra etc. Today increasing population has caused a great imbalance between the availability of food and population. India's ranked second in vegetable production in the world after china. India production 175008 thousand metric ton of vegetables from area of 10290 thousands hectares with productivity of 17.01 MT/ha. (National Horticulture Board, 2016-17).

## **Methods and Materials**

The study was conducted in Meerut District of Western Uttar Pradesh during year 2017-18. Meerut district comprise of 12 blocks in which four blocks namely Kharkhoda, Sardhana, Parikshitgarh and Daurala were purposively selected. Four villages from each block were purposively selected and 160 vegetables growers were selected from all villages. Thus total sample size was of 160 respondents. The sample was collected through personal interview Schedule. The constraints related to vegetables growers' respect of adoption of improved cultivation package and practices were studying and computing constraints score. Three score for strongly Agree (SA), two score for Agree (A) and one score for Disagree (DA). Data were summarized analysed in terms of mean percentage score and rank order.

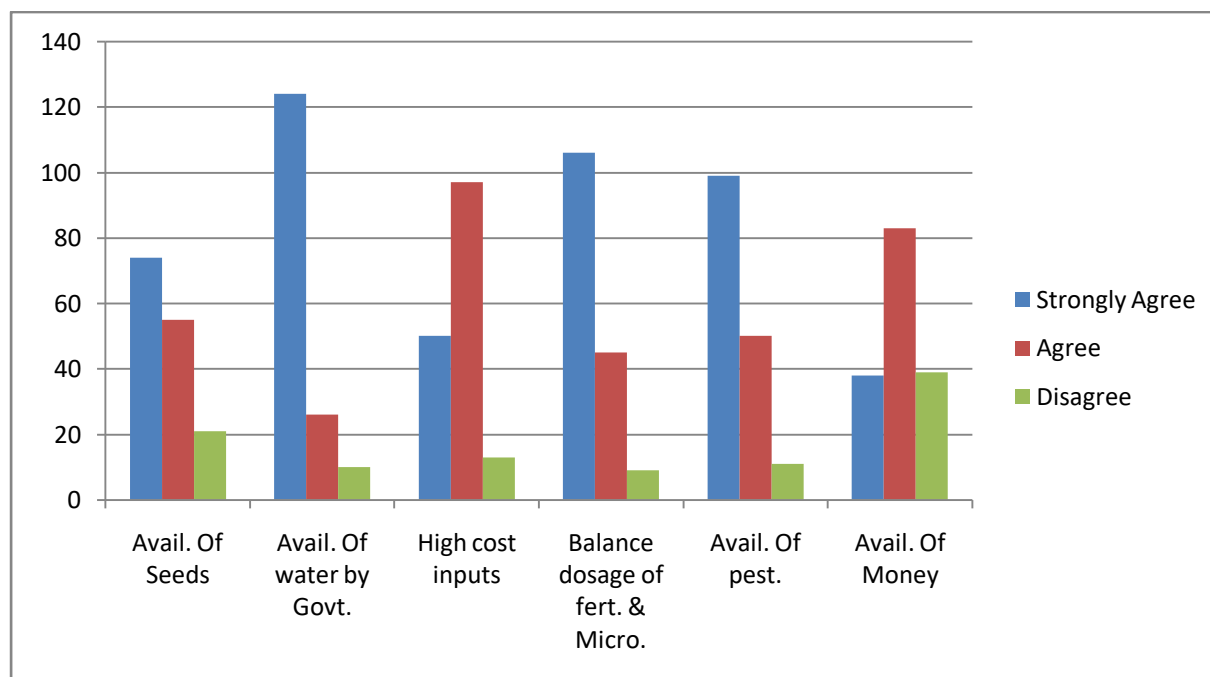
## **Result and Discussion**

The data presented below in Table No.1 revealed that the most important constraints related to vegetable growers were timely availability of water by government resources followed by insufficient of knowledge about balance dosage of fertilizers and micronutrients and availability of pesticides & fertilizer at Govt. Agencies, more cost of Hybrid seeds, chemicals

and fertilizers, availability of improved seeds at sowing time and least constraints faced by farmers Availability of money to purchase inputs.

**Table No.1: Input related constraints perceived by vegetable growers:**

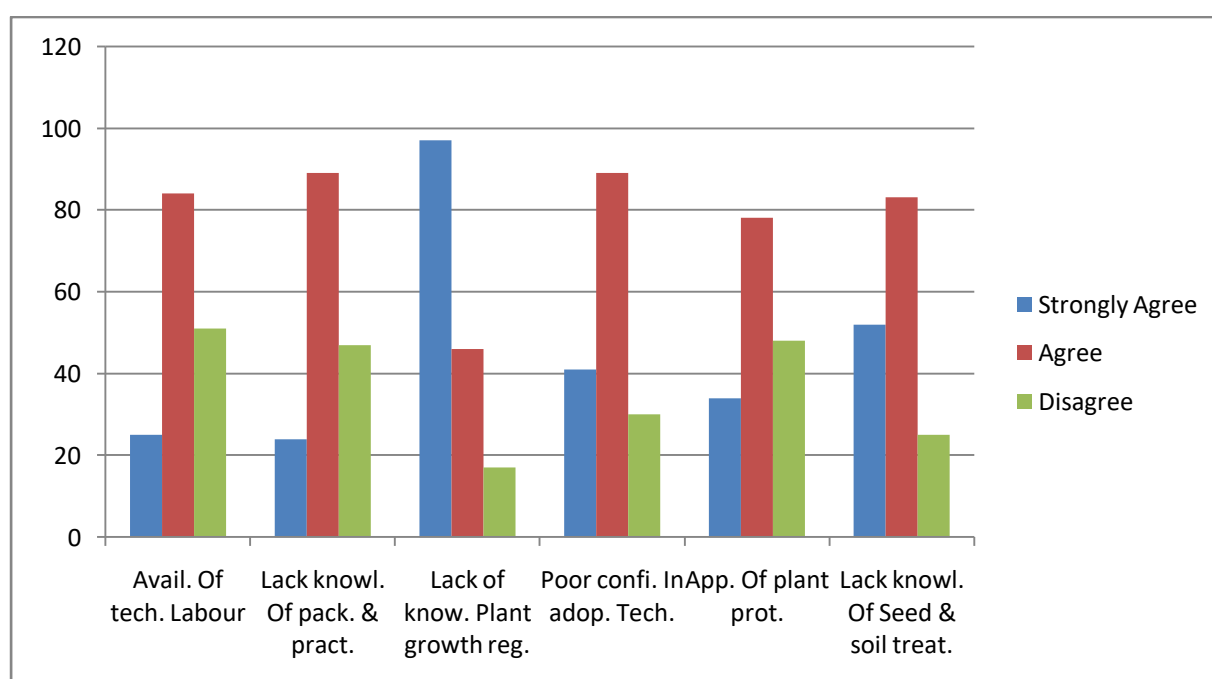
| S. No. | Constraints                                                                      | S.A. | A. | D.A. | MPS   | Rank |
|--------|----------------------------------------------------------------------------------|------|----|------|-------|------|
|        | <b>Inputs Related Constraints</b>                                                |      |    |      |       |      |
| 1.     | Availability of improved seeds at sowing time.                                   | 74   | 55 | 21   | 73.75 | V    |
| 2.     | Availability of water timely by Govt. Resources (Tube Well)                      | 124  | 26 | 10   | 90.41 | I    |
| 3.     | More cost of Hybrid seeds, chemicals and fertilizers                             | 50   | 97 | 13   | 75.70 | IV   |
| 4.     | Insufficient of knowledge about balance dosage of fertilizers and micronutrients | 106  | 45 | 09   | 86.87 | II   |
| 5.     | Availability of pesticides & fertilizer at Govt. Agencies                        | 99   | 50 | 11   | 84.99 | III  |
| 6.     | Availability of money to purchase inputs                                         | 38   | 83 | 39   | 66.45 | VI   |



The data presented in table no. 2 revealed that the technical constraints perceived by vegetable growers most important were lack of knowledge related to plant growth regulator followed by less knowledge related to seed and soil treatment, Poor confidence in adoption of recommended newly technology, application of plant protection extent is risky due to lack of knowledge, lack of knowledge regarding recommended package and practices and least availability of technically sound labour.

**Table No.2: Technical constraints perceived by vegetable growers:**

| S. No. | Constraints                                                              | S.A. | A. | D.A. | MPS   | Rank |
|--------|--------------------------------------------------------------------------|------|----|------|-------|------|
|        | <b>Technical Constraints</b>                                             |      |    |      |       |      |
| 1.     | Availability of technically sound labour                                 | 25   | 84 | 51   | 61.24 | VI   |
| 2.     | Lack of knowledge related to recommended package and practices           | 24   | 89 | 47   | 61.87 | V    |
| 3.     | Lack of knowledge related to plant growth regulator                      | 97   | 46 | 17   | 83.88 | I    |
| 4.     | Poor confidence in adoption of recommended newly technology              | 41   | 89 | 30   | 68.95 | III  |
| 5.     | Application of plant protection extent is risky due to lack of knowledge | 34   | 78 | 48   | 63.75 | IV   |
| 6.     | Less knowledge related to seed and soil treatment                        | 52   | 83 | 25   | 72.29 | II   |

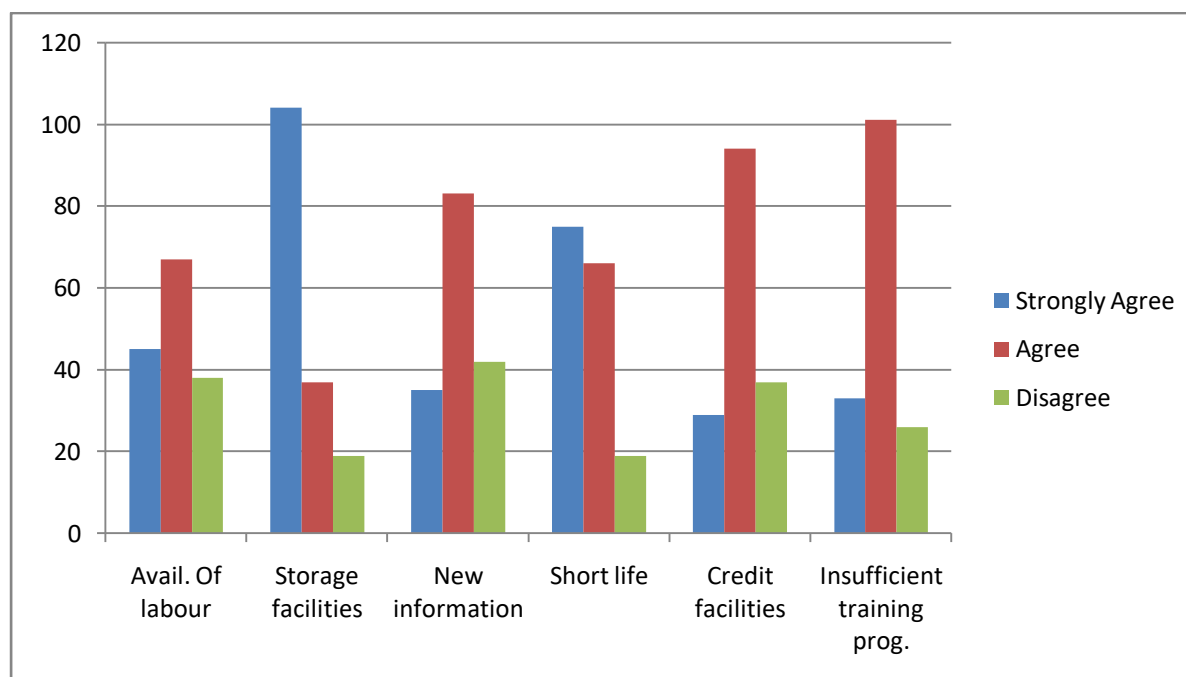


The data presented on Table no. 3 revealed that majority of the farmers faced were storage facilities are not available followed by short life of harvested vegetables, insufficient training programme are organized by the Govt. Department on vegetable cultivation, new and timely information are not available at proper time, credit facilities are not available for vegetable cultivation and least availability of labour at peak season.

**Table No.3: General constraints perceived by vegetable growers:**

| S. No. | Constraints                           | S.A. | A. | D.A. | MPS   | Rank |
|--------|---------------------------------------|------|----|------|-------|------|
|        | <b>General Constraints</b>            |      |    |      |       |      |
| 1.     | Availability of labour at peak season | 45   | 67 | 38   | 63.95 | VI   |
| 2.     | Storage facilities are not available  | 104  | 37 | 19   | 84.37 | I    |

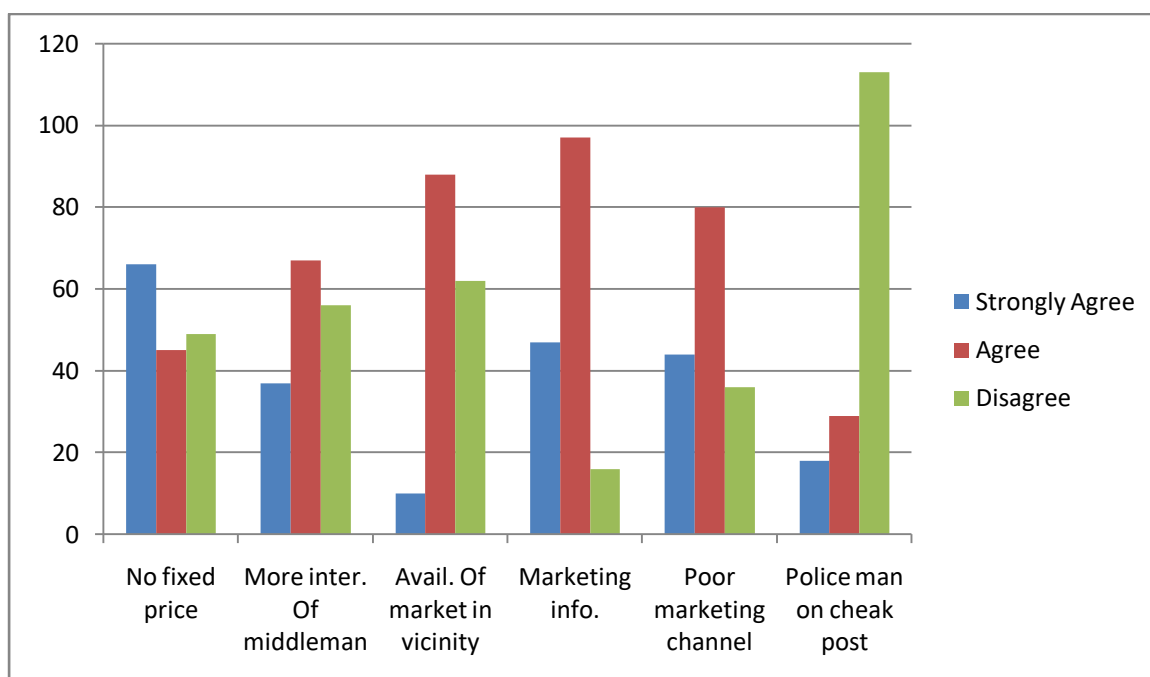
|    |                                                                                                |    |     |    |       |     |
|----|------------------------------------------------------------------------------------------------|----|-----|----|-------|-----|
| 3. | New and timely information are not available at proper time                                    | 35 | 83  | 42 | 65.2  | IV  |
| 4. | Short life of harvested vegetables                                                             | 75 | 66  | 19 | 78.33 | II  |
| 5. | Credit facilities are not available for vegetable cultivation                                  | 29 | 94  | 37 | 64.95 | V   |
| 6. | Insufficient training programme are organized by the Govt. Department on vegetable cultivation | 33 | 101 | 26 | 68.12 | III |



The presented Table no. 4 revealed that related to marketing the most of the farmer's constraints faced were marketing information is not available in time followed by no fixed price of vegetable like wheat & rice, Poor marketing channel, more interference of middleman in vegetable marketing system, Availability of market in the vicinity and least Police man create problem at barrier/police check post.

**Table No.4: Marketing constraints perceived by vegetable growers:**

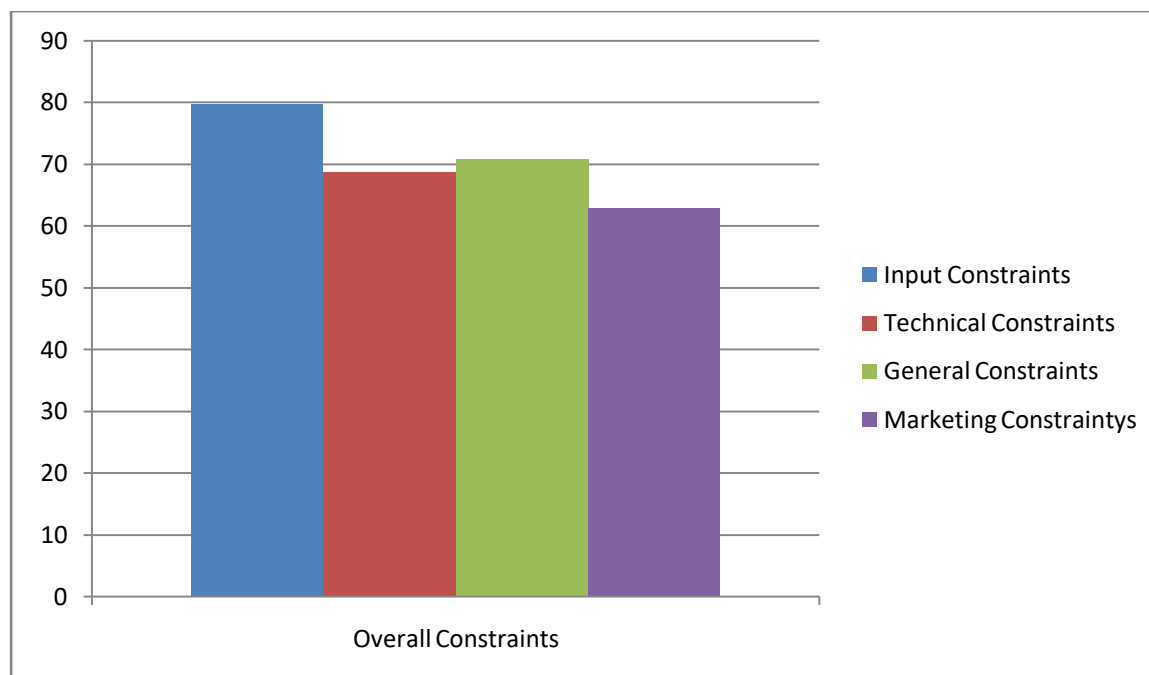
| S. No. | Constraints                                                  | S.A. | A. | D.A. | MPS   | Rank |
|--------|--------------------------------------------------------------|------|----|------|-------|------|
|        | <b>Marketing Constraints</b>                                 |      |    |      |       |      |
| 1.     | No fixed price of vegetable like wheat & rice                | 66   | 45 | 49   | 70.2  | II   |
| 2.     | More interference of middleman in vegetable marketing system | 37   | 67 | 56   | 62.7  | IV   |
| 3.     | Availability of market in the vicinity                       | 10   | 88 | 62   | 55.83 | V    |
| 4.     | Marketing information is not available in time               | 47   | 97 | 16   | 73.12 | I    |
| 5.     | Poor marketing channel                                       | 44   | 80 | 36   | 68.33 | III  |
| 6.     | Police man create problem at barrier/police check post       | 18   | 29 | 113  | 46.87 | VI   |



The presented table No.5 revealed that the four categories related to farmers faced problems related to in adoption of improved technology of vegetables. A critical examine of the data revealed that most of farmers faced input related constraints followed by general constraints, technical constraints and at least marketing constraints.

**Table No.5: Relative position of different categories of constraints as perceived by the vegetables growers of vegetable cultivation.**

| S. No. | Constraints           | Mean Score | Rank |
|--------|-----------------------|------------|------|
| 1.     | Input constraints     | 79.69      | I    |
| 2.     | Technical constraints | 68.66      | III  |
| 3.     | General constraints   | 70.82      | II   |
| 4.     | Marketing constraints | 62.84      | IV   |



### Conclusion

The major constraints in improved vegetable cultivation technology as perceived by the vegetables growers were "availability of water timely by Govt. Resources (Tube Well)", "lack of knowledge about balance dosage of fertilizers and micronutrients", "availability of pesticides & fertilizer at govt. agencies", "storage facilities are not available", "short life of harvested vegetables", and " high cost of Hybrid seeds, chemicals and fertilizers ". The maximum farmers faced input related constraints followed by general constraints, technical constraints and marketing constraints.

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