**Constraint and Suggestion among Trained and Untrained Soybean Growers in Madhya Pradesh, India**

**ABSTRACT**

Soybean is a species of legume botanically known as Glycine max native to Asia. It is also known as Golden Bean, well as yellow jewels of America and wonder crop. It is a most important crop of twenty first century, occupying premier position among oilseed crops of the country since 2006. It is also the most important oil bearing leguminous crop of the world. It is counting as an oilseed as well as pulse crop due to its high oil and protein content. Recently, it has been recognized for its health and well-being properties. The productivity of soybean is higher than other legumes. It contains around 42 % protein and 18-20% oil. It has also contributed in the socio-economic upliftment of soybean growers of central part of our country and is poised to repeat the similar success story in other part of country too. Soybean has largely been responsible in uplifting soybean grower’s economic status in many areas of the country but soybean crops low yield may create problem in uplifting of economic condition of the untrained soybean growers. The study was entirely concerned Constraint and Suggestion among Trained and Untrained Soybean Growers. In view of the objectives of the study two types of soybean growers, trained and untrained were selected. A total 200 soybean growers in which 100 trained soybean growers and 100 untrained soybean growers were selected through random sampling method from the selected village panchayats. Data were collected by researcher through an interview schedule method by open ended response of respondents. An appropriate statistics measures has been used to draw inferences.It was reported from the research that most important constraints faced by the trained and untrained soybean growers is lack of money to purchase useful inputs and measure suggestions reported by the trained and untrained soybean growers is improved seeds and inputs should be provided in timely. Suggestions were made by soybean growers are important to consider in training programme by extension agencies, government department to minimize the constraints which hinders the adoption of improved practices of soybean cultivation technology.

**Keywords:** Constraint, Suggestion, Soybean Growers, Trained, Untrained.

**INTRODUCTION:**

Soybean is a species of legume botanically known as Glycine max native to Asia. It is also known as Golden Bean, well as yellow jewels of America and wonder crop. It is a most important crop of twenty first century, occupying premier position among oilseed crops of the country since 2006 (krishi.icar.gov.in, 2020). It is also the most important oil bearing leguminous crop of the world. It is counting as an oilseed as well as pulse crop due to its high oil and protein content. Recently, it has been recognized for its health and well-being properties and is now used in a range of nutrition bars, tofu, pasta and baked goods and many more different food items making. The productivity of soybean is higher than other legumes. It contains around 42 % protein and 18-20% oil.

Soybean till now has been an export commodity of valuable foreign exchange mainly for its de-oiled cake (DOC), which contributed greatly to the economy of India. But during the recent years, the trends show that the soybean DOC is also being used domestically in many forms which is a good positive indication for soybean economy [9,10].

It contributes in bringing the yellow revolution in our country. It contributes around 28% to countries oil production. It has also contributed in the socio-economic upliftment of soybean growers of central part of our country and is poised to repeat the similar success story in other part of country too. Currently, it is mostly grown in the Madhya Pradesh, Maharashtra, Rajasthan, Karnataka, Telangana and Chhattisgarh state of our country.

Soybean has largely been responsible in uplifting soybean grower’s economic status in many areas of the country but soybean crops low yield may create problem in uplifting of economic condition of the untrained soybean growers. The study was entirely concerned about constraint and suggestion among trained and untrained soybean growers.

**METHODOLOGY**:

 The research was based on a survey done order to constraint and suggestion among trained and untrained soybean growers. At the first stage, Sehore district of Madhya Pradesh was purposively selected for the study. The total numbers of blocks in Sehore district are five. Out of five blocks, two blocks namely, Sehore and Ichhawar were selected randomly. Separate list of village panchayats was prepared on the basis of soybean growers who received training under krishi vigyan kendra and soybean growers who do not received training. After that, in the both list five-five trained and untrained soybean growers village panchayats were selected from each selected block, Therefore, a total number of 20 village panchayats were selected to select soybean growers. The soybean growers are main source of information. In view of the objectives of study two types of soybean growers, trained and untrained were selected. A total 200 soybean growers in which 100 growers trained and 100 growers untrained were selected through Probability proportion to size method from the selected village panchayats. Data were collected by researcher through an interview schedule method by open ended response of respondents. The data was analyzed by using percentage, standard deviation and rank order.

**RESULTAND DISCUSSION:**

**Constraints:**

**1: The constraints faced by soybean growers**

The constraints was presented and discussed in Table 1.

**Table 1: Distribution of constraints faced by soybean growers**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N.** | **Constraints** | **Trained Growers** | **Untrained Growers** |
| **%** | **Rank** |  **%** | **Rank** |
| **A** | **Economic constraints** |
| i | Lack of money to purchase useful inputs | 33 | I | 29 | II |
| ii | Lack of money for land preparation | 26 | II | 17 | III |
| iii | High cost of seeds | 23 | III | 41 | I |
| iv | High labour charges | 18 | IV | 13 | IV |
| **B** | **Technical constraints** |
| i | Lack of current agricultural literature | 30 | I | 11 | V |
| ii | Lack of knowledge about insects and diseases | 25 | II | 19 | III |
| iii | Lack of soybean crop related training | 22 | III | 24 | II |
| iv | Lack of knowledge about soil testing | 13 | IV | 14 | IV |
| v | Technological skills are not developed through special training programme | 10 | V | 32 | I |
| **C** | **Extension constraints** |
| i | Lack of technical guidance by the KVK | 28 | II | 41 | I |
| ii | Demonstrations not conducted adequately and timely | 37 | I | 13 | III |
| iii | Lack of trainings provided by KVKs | 16 | III | 29 | II |
| **D** | **Institutional constraints** |
| i | Co-operative societies are not providing seeds timely | 73 | I | 66 | I |
| ii | Lack of technical information from KVKs | 27 | II | 34 | II |
| **E** | **Situational constraints** |
| i | Low market price | 34 | I | 40 | I |
| ii | Lack of storage facilities | 31 | II | 18 | II |

The Table 1 showed that the major constraints faced by the trained soybean growers were lack of money to purchase useful inputs, lack of current agricultural literature, demonstrations not conducted adequately and timely, co-operative societies are not providing seeds timely and low market price.

Whereas, in case of untrained soybean growers the major constraints faced by the untrained soybean growers were lack of money to purchase useful inputs, technological skills are not developed through special training programme, lack of technical guidance by the KVK, co-operative societies are not providing seeds timely and low market price. The results of this study are in same line of findings repeated by Verma *et al*., (2018), Kumar *et al*., (2024) and Patel & Lad (2024).

**Table 2: Percentage distribution of soybean growers according to their overall constraints**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.N.** | **Categories** | **Trained Growers****(%)** | **Category** | **Untrained Growers****{%)** |
| 1. | Low (Scores up to 5 ) | 39 | Low (Scores up to 37 ) | 31 |
| 2. | Medium (Scores 6 to 10) | 48 | Medium (Scores 38 to 74 ) | 53 |
| 3. | High (Scores 11 to 16) | 13 | High (Scores 75 & above) | 16 |
| **Total** | **100** | **Total** | **100** |

The above Table 2 showed that the majority (48%) of trained soybean growers has belonged to medium category followed by low (39%) and high (13%).

Whereas, in case of untrained soybean growers majority (53%) of untrained soybean growers belong to medium category followed by low (31%) and high (16%), respectively. Therefore, this difference in score is showing the degree of seriousness of the constraints in case of untrained soybean growers.

**Suggestions:**

**2. Table 3: Distribution of suggestions to overcome the constraints**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N** | **Suggestions** | **Trained Growers** | **Untrained Growers** |
| **(%)** | **Rank** | **(%)** | **Rank** |
| I. | Improved seed and inputs should be provided timely. | 85 | I | 90 | I |
| II | Formation of more co-operative societies | 77 | II | 84 | II |
| III | Soybean crop related training programme should be conducted | 68 | III | 79 | III |
| IV | More demonstrations should be conducted | 64 | IV | 73 | IV |
| V | Frequent visit to research farms | 61 | V | 67 | V |
| VI | Price of produce should be increased | 59 | VI | 61 | VI |
| VII | Availability of current agricultural literature | 52 | VII | 54 | VII |
| VIII | Cost of chemicals should be reduced | 49 | VIII | 51 | VIII |

The Table 3 shows that the many suggestions as perceived by trained and untrained soybean growers about improved technology of soybean crop. The majority of trained soybean growers were perceived the suggestions i.e., ‘Improved seed and inputs should be provided timely(85%) ranked I, ‘Formation of more co-operative societies’ (77%) ranked II, ‘Soybean crop related training programme should be conducted (68%) ranked III, ‘More demonstrations should be conducted’ (64%) ranked IV, ‘Frequent visit to research farms’ (61%) ranked V, ‘Price of produce should be increased’ (59%) ranked VI, ‘Availability of current agricultural literature’ (52%) ranked VII, and ‘Cost of chemicals should be reduced’ (49%) ranked VIII.

Whereas, in case of untrained soybean growers, the majority of untrained soybean growers were perceived the suggestions i.e., ‘Improved seed and inputs should be provided timely (90%) ranked I, ‘Formation of more co-operative societies’ (84%) ranked II, ‘Soybean crop related training programme should be conducted (79%) ranked III, ‘More demonstrations should be conducted’ (73%) ranked IV, ‘Frequent visit to research farms’ (67%) ranked V, ‘Price of produce should be increased’ (61%) ranked VI, ‘Availability of current agricultural literature’ (54%) ranked VII, and ‘Cost of chemicals should be reduced’ (51%) ranked VIII. The results of this study are in same line of findings repeated by Rajan *et al*., (2017), Verma *et al*., (2018), Kalitha *et al*., (2020) and Kumar *et al*., (2024).

**CONCLUSION:**

It was reported from the research that, majority of soybean growers had poor awareness about improved technology of soybean crop and low use of extension contact. This need to step up extension efforts to soybean growers for imparting technological awareness and this can be done by conducting regular training and field visits by the KVK personal. Suggestions were made by soybean growers are important to consider in training programme by extension agencies, government department to minimize the constraints which hinders the adoption of improved practices of soybean cultivation technology.

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