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## Problems faced by the linseed farmers during the adoption of recommended linseed production technology in Kanker district of Chhattisgarh

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**Abstract**

Flax (*Linum usitatissimum*) belonging to family Lineaceae, is a blue flowering annual herb that produces small flat seeds varying from golden yellow to reddish brown color. Flaxseed possesses crispy texture and nutty taste. Flaxseed is also known as linseed and these terms are used interchangeably. Almost all parts of linseed plant are utilized for various purposes. According to problems, the highest percentage of the respondents 85 per cent were faced problem of delay in sowing due to late harvesting of previous *kharif* crops (paddy), followed by 75 per cent non adoption of line sowing due to presence of moisture of previous paddy crops, 66.66 per cent lack of fair selling price of linseed at local market, 58.33 per cent lack of irrigation facilities. 53.33 per cent less preference to linseed as compare to other crops, 51.67 per cent delay in payment of crop produce and 50 per cent getting low yield in linseed as compare to other crops. according to "the "suggestions obtained from the respondents to overcome the problems faced by them, the data revealed that majority 91.67 per cent "of the respondents suggested that" marketing facilities should be increases, followed by 70 per cent of the respondents suggested that low cost technology must be introduced, 58.33 per cent of the respondents suggested that Regular visit and guidance should be done by KVK scientists. 53.33 per cent of the respondents suggested that Post demonstration contacts must be maintained. 50 per cent "of the farmers suggested extension activities i.e. kisanmela, demonstration, exhibition, training, visit etc. should be conducted in village at proper time." 41.67 per cent of the respondent provision for instant payment of crop produce should be made.

**Keywords:** Linseed. Linseed production, problems, suggestions, linseed production technology.

**Introduction**

Flaxseed is one of the oldest crops, having been cultivated since the beginning of cultivation. The Latin name of the flaxseed is *Linum usitatissimum*, which means very useful. Flax was first introduced by colonists in the United States, mostly to manufacture fiber for clothing (Loux 2011)<sup>[1]</sup>. Each portion of the flaxseed plant is commercially used, either directly or after processing. The stem yields good quality fiber having high strength and durability (Singh *et al.* 2011)<sup>[4]</sup>.

India holds a major share in the production of world oilseeds. 20 percent of the net area sown was in the area under major oilseeds viz., Groundnut, Sesame, Rapeseed Mustard, Linseed, Castor, Soybean, Cotton seed, Sunflower, Safflower and Niger seeds. It is currently grown in over 50 countries, mainly in the northern hemisphere. Linseed is being cultivated in Egypt, Europe and India since pre-historic times. The important linseed growing countries are India, Russia, Canada, Argentina, and the U.S.A. from the 21.12 lakh hectares global area, 41.62% i.e. 8.79 lakh ha. 2 belong to the Asian region with 5.35 lakh tonnes contribution to the total world production (21.23lakh tones). Productivity of this region (608 kg/ha) is approximately 60% of the world productivity of 1006 kg/ha. India is the second largest (21.21%) linseed growing country in the world in terms of area of cultivation after Canada. Production wise, India ranks 4th (8.20%) in the world after Canada (40.51%), China (18.68%) and the USA (10.89%) (Srivastava, 2009)<sup>[5]</sup>. But as per Food and Agricultural Organization Statistical data, India ranks 3rd (9%) in the world's top 20 linseed producing countries. However, in terms of productivity, India (449 kg/ha) is far below than Canada (1492 kg/ha), USA (1484 kg/ha), Egypt (1469 kg/ha), Russia (1272 kg/ha) and China (944 kg/ha). Although, the area of cultivation of linseed is decreasing, the productivity is increasing not only in India (+17%), but also all over the world (+18%). Canada is the biggest producer and exporter of flax seeds in the world. India, China, the United States, and Ethiopia are the main linseed growing countries. In terms of acreage, India ranks first among the leading countries producing flaxseed, accounting for 23.8 percent of the total and third in volume, contributing to 10.2 percent of the world's production (Singh *et al.* 2011a,b). India ranks 4th among the world's

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linseed producing countries as per the Food and Agriculture Organization. However, India (392 kg/ha) is well below Switzerland (2647 kg/ha), Tunisia (2633 kg/ha), and the United Kingdom in terms of productivity. (2600 kg/ha), France (2121 kg/ha) and (1853 kg/ha) New Zealand.

In India linseed is grown in an area of 3.3 lakh hectare with annual production of 1.7 million tons, with an average yield of 523 kg/ha. In the global rating, India is at the third position for the production of oilseed. The area of linseed in Chhattisgarh is 0.49 lakh hectare, production 0.19 lakh million tonnes and productivity (387.36 kg/ha). Oilseeds form second largest agricultural commodity in India after cereals sharing 14 per cent of the gross cropped area and accounting for nearly 3 per cent of National gross product and 10 per cent value of all agricultural products. The continuous increase in import of oilseed is a matter of great concern today. Among the oilseed crops, linseed occupies a prominent position in Indian oilseed Scenario.

During 2007-08, total area under linseed was 412 thousand hectares with total production of 260 thousand tonnes, contribution 11.9 the total production in India (Total Oilseed production in India was 24.28 million tonnes during 2006-07). It is the second most common rabi oilseed crop and, in the field of cultivation and seed production in India, stands next to rapeseed-mustard. The *Linum* genus consists of approximately 230 species, but the only species of economic significance in the genus is cultivated linseed/linseed (Rowland *et al.*, 1995; Tadesse *et al.*, 2010) <sup>[3, 7]</sup> and is one of the oldest fiber and oil-grown plants. In Odisha, linseed is popularly referred to as Atasi, Pesi, Phesi or Tisi. In India, linseed is mainly grown in major linseed producing states in rainfed (63 percent), utera (25 percent), irrigated (17 percent) and input starved conditions, i.e. Madhya Pradesh, Chhattisgarh, Jharkhand, Uttar Pradesh, Maharashtra, and Odisha (Srivastava, 2009) <sup>[5]</sup>.

Chhattisgarh is one of the important linseed growing state of India, where it is cultivated in an area of 0.26 lakh hectare

with a production of 0.11 lakh tones but its productivity is low in Chhattisgarh (423 kg ha) compared to national (498 kg ha) and global (877 kg ha) productivity. (Anonymous, 2015 b).

### Materials and Methods

The study was conducted in Kanker district of Chhattisgarh. Kanker district is located in the southern region of the state of Chhattisgarh, in agro climatic zone this district comes under bastar plateau zone India with in the longitudes 20.6-20.24 and latitudes 80.48-81.48. The total area of the district is 5285.01 square kilometres. The population is 748,941. The normal annual rainfall for the district is 1090 mm. There are 7 blocks in this district, namely kanker, Antagarh, Naraharpur, Bhanupratappur, Charama, Durgukondal and Koilebeda. FLDs on linseed production technology was conducted only in 3 block namely kanker, charama and naraharpur. Out of these, kanker and charama blocks were selected purposively on the basis of maximum number of FLD beneficiary farmers. Two villages from each selected block were considered for selection of respondent on the basis of maximum number of FLD participating farmers. (4 villages) 15 beneficiary and 15 non-beneficiary farmers were selected as respondents from each selected village. In this way, 60 beneficiary and 60 non-beneficiary farmers was considered as respondents. Thus, total 120 respondents were selected randomly.

### Result and discussion

The objective, to know the problems as perceived by beneficiary farmers of front line demonstration during the adoption of linseed production technology.

Multiple responses were taken to ascertain the problems faced by the linseed grower in adoption of recommendation linseed production technology. On the basis of responses obtained from the respondents, various problems are presented in Table 1.

**Table 1:** Problems as perceived by beneficiary farmers of during the adoption of linseed production technology.

| S.N. | Problems   | F  | %     | Rank |
|------|--|----|-------|------|
| 1    | Delay in sowing due to late harvesting of previous crops/ <i>kharif</i> crops (paddy). | 50 | 85.00 | I    |
| 2    | Non adoption of line sowing due to presence of moisture of previous paddy crops.       | 45 | 75.00 | II   |
| 3    | Lack of fair selling price of linseed at local market.                                 | 40 | 66.66 | III  |
| 4    | Lack of irrigation facilities.   | 35 | 58.33 | IV   |
| 5    | Less preference to linseed as compare to other crops.                                  | 32 | 53.33 | V    |
| 6    | Delay in payment of crop produce.  | 31 | 51.67 | VI   |
| 7    | Getting low yield in linseed as compare to other crops.                                | 30 | 50.00 | VII  |

The problems faced by the farmers in adoption of linseed FLDs are presented in Table 1. A perusal of the data indicated that per cent of linseed FLDs beneficiaries faced Delay in sowing due to late harvesting of previous crops/*kharif* crops (paddy) (85 per cent and ranked I), Non adoption of line sowing due to presence of moisture of previous paddy crops (75.00 per cent and ranked II), Lack of fair selling price of linseed at local market (66.66 per cent and ranked III), Lack of 90 irrigation facilities (58.33per cent and ranked IV), Lack of fair selling price of linseed at local market (53.33 per cent and ranked V), Delay in payment of crop produce (51.67 per

cent and VI ranked). Getting low yield in linseed as compare to other crops (50 per cent and ranked VII). Sharma (2015) <sup>[6]</sup> also similar finding in his study.

### To know the suggestions as given by beneficiary farmers of front line.

Demonstration for improving adoption level of linseed production technology. As regards to the suggestions given by the respondents to overcome the problem faced by them during the adoption of linseed production technology the finding are presented in the Table 2.

**Table 2:** Presents the information regarding suggestions given by beneficiaries of FLD of linseed.

| S.N. | Suggestions   | F  | %     | Rank |
|------|---|----|-------|------|
| 1    | Marketing facilities should be increases.   | 55 | 91.6  | I    |
| 2    | Low cost technology must be introduced.   | 42 | 70    | II   |
| 3    | Regular visit and guidance should be done by KVK scientists.  | 35 | 58.33 | III  |
| 4    | Post demonstration contacts must be maintained.   | 32 | 53.33 | IV   |
| 5    | Extension activities i.e. kisanmela, demonstration, exhibition, training, visits etc. should be conducted in villages at proper time. | 30 | 50    | V    |
| 6    | Provision for instant payment of crop produce should be made.   | 25 | 41.67 | VI   |

It is obvious from table that 91.6 per cent marketing facilities should be increases (ranked I), Low cost technology must be introduced (70 per cent and ranked II), Regular visit and guidance should be done by KVK scientists (58.33 per cent and ranked III), Post demonstration contacts must be maintained (53.33 per cent and ranked IV). Extension activities i.e. kisan mela, demonstration, exhibition, training, visits etc. should be conducted in villages at proper time (50 per cent and ranked V). Provision for instant payment of crop produce should be made (41.67 per cent and ranked VI). Patel (2017) [2] also similar finding in her study.

### Conclusion

It has been concluded that linseed growers were the major problem in adopting the linseed production technology recommended by the farmers. Were Lack of fair selling price of linseed at local market, (66.66 per cent), and Delay in payment of crop produce, (51.67 per cent). Some of the suggestions obtained from the majority of the respondents that marketing facilities should be increases, (91.6per cent). And provision for instant payment of crop produce should be made, (41.6 per cent).

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