

RECENT TRENDS IN SUNFLOWER PRODUCTION IN CANADA

By

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All that I can report without qualification in regard to development and trends in sunflower production in Canada could be summarized by saying that plantings of this crop reached a new high this year, although not quite to the extent anticipated earlier in the season.

Our organization contracted 85,000 acres in Manitoba compared to 52,000 acres a year ago. Frequent rains delayed seeding from three to four weeks, however, and less than 10% of the contracted acreage was planted by June 1st and only about 80% by June 15th.

The sunflowers that were planted appeared quite promising at the time of this report. Germination and seedling emergence was generally excellent and furthermore, Krasnodarets, an early maturing variety, represented 70% of the total acreage. Of the later varieties Peredovik, Commander, and Valley accounted respectively for 22%, 7%, and 1% of the overall plantings.

This was actually the third year in succession that the growers in our area had to contend with extremes of weather conditions. In 1968 below normal seasonal temperatures presented a problem while last year excessive rainfall caused widespread flooding and waterlogged soil conditions. Consequently the 1969 crop averaged only 630 pounds of seed per acre and that of the previous year 650 pounds.

In spite of the adverse weather conditions the seed was generally good with crushings yielding respectively 40% and 39% oil.

In Connection with the effects of weather conditions on Manitoba sunflower yields it is pertinent to note that so far the greater part of the acreage has been concentrated in a relatively small area. This area, which extends from the international boundary at Emerson about 40 miles in a northwesterly direction and about the same distance from east to west, accounted this year for about 70% of the total acreage in the province.

An explanation of the current increase of interest among Manitoba farmers in sunflower production would entail consideration of restrictive marketing quotas on wheat and other cereal grains on the one hand, and on the other, an assured market together with an upward price trend for sunflower seed. Cash payments to growers by C.V.O. for 1969 crop sunflower seed delivered at Altona amounted to 5.5 cents per pound compared to 4.4 cents in 1968 and 4.0 cents in 1967.

In the other prairie provinces, that is, in Saskatchewan and Alberta, sunflowers must still be regarded as an experimental crop, and this would probably apply even more to marketing than to production of the crop.

DISCUSSION
(continued)

reason is that nitrogen in our condition make the plants grow vigorously in the first signs of vegetation. Then when flowering starts, there are several factors - high temperatures, no rain, plants that are very much developed, the advantages of the slow year, in this case, is very much diminished. This, in our experiments, has given us good results and is applied in various quantities. The object of this is the stability. The evidence shows that we need more phosphorus in our soils than nitrogen.

Question: Romania is supposedly a big spice capital. Can you give us any explanation of the damage caused by flooding? I understand that sunflowers have taken over one-fifth of this area.

Answer: You asked me about the damage caused by flooding. The Romanian area where sunflowers are prominent is on the Barrigan Plain in the southern part of Romania where flood doesn't occur. These happen in the mountain area. The greatest damage is done to industry. They are in the greatest areas near the mountain rivers. We were concerned so we planted the sunflowers where there would be no flood in the area.

Question: You indicated that you had about 15,000 hybrid sunflowers this year. What was the average oil percentage overall?

Answer: The oil content averaged up to 52 or 53%.

Question: You mentioned a plant population of 30 to 45,000 plants per hectare. Is that on dry lands or under irrigation? Do you have a heavier plant population under irrigation?

Answer: Yes.

Question: What is the plant population under irrigation?

Answer: It generally is 10% more than on dry land. I was very surprised when I heard that we are just now indicating that plant population amounts to 150,000 per hectare. I think that is too much. It is not possible to seek such a quantity of sunflowers for a good yield. Under irrigation, there should be no more than 60,000 plants per hectare.

Question: Have you done experimental work with this?

Answer: Yes.

Question: What row spacing do you use in planting and also have you tried solid row spacing about 6 to 7 inches wide like we use?

Answer: We use centimeters. We are planting the sunflowers 18 centimeters and 25 to 35 centimeters between plants on the row. We are seeding corn at the same distance because we are using the same machinery for corn and sunflowers.

Although there are two oilseed crushing plants in Saskatchewan and one in Alberta, at the present time none is offering grower contracts for sunflowers. Lately there have been frequent reports of inquiries from the export trade for sunflower seed but development of this market is handicapped by a relatively high cost of transporting the seed to seaboard.

Unofficial estimates placed sunflower plantings in Saskatchewan this year at 3,000 acres and in Alberta at 6,000 acres compared to none in either province a year ago.

The results of tests conducted at various locations by the Canada Department of Agriculture would seem to indicate that the crop is adapted certainly over a much wider area than it is now being grown. Although tests at Morden and Portage la Prairie in Manitoba produced consistently some of the highest yields, at least at four locations in the other provinces average yields compared quite favorably with those obtained at Altona.

RECENT SUNFLOWER STATISTICS

Sunflower Acreage Planted in Canada:

	<u>1970</u>	<u>1969</u>	<u>1968</u>	<u>1967</u>
Manitoba	68,000	48,300	37,000	44,000
Saskatchewan	3,000	none	2,500	1,800
Alberta	<u>6,000</u>	<u>none</u>	<u>500</u>	<u>none</u>
	77,000	48,300	40,000	45,800

Average Yields in Manitoba:

Pounds of seed per acre	630	650	800
Price to grower in cents per pound	5.5	4.4	4.0

Sunflower Crashings at Altona:

Seed Processed (000 pounds)	25,900	24,246	24,471
Products Yields:			
% Oil	40.01	38.97	40.48
% Meal	38.00	37.74	37.14

Varieties in Percentage of Total Acreage:

Peredovik	22	28	41	40
Krasnodarets	66	48	9	none
Armavirec	4	14	37	41
Valley (Admiral in 1967)	1	2	none	7
Commander	7	8	13	12

DISCUSSION

Question: Do you have any insect or disease problems?

Answer: Yes, we do have an insect and disease problem. I think our disease problem has been secondary to other problems. Three years ago when we had the Third International Sunflower Conference in Crookston, we had a great loss from Sclerotinia. We attribute that to a secondary condition. I think that year it was frost. We had frost on the 20th of August. I think that was where the plant was injured in the first place. We have had a considerable amount of Verticillium. It is usually where we have a very wet condition during growth and then we have had drier conditions later on that seems to have some bearing on it. I also think that it may have something to do with cultural practices. I sort of feel that we may be cultivating a little too deep, too late in the season, and too close.

Insects: We have, this year, a serious infestation of the sunflower beetle. This has not been a problem since 1959, but again this year it is. The sunflower beetle, again, isn't too much of a problem unless we have extra stress like this year, too much moisture, the plants aren't doing too well, and then, of course, the sunflower beetle becomes more evident and that much more serious.

Question: Do you expect the sunflower acreage to increase in Canada, or do you rather expect an increase in rapeseed acreage?

Answer: As my talk indicated, we have a very serious handicap of acreage for sunflowers. We have a much larger acreage that rapeseed is adapted to. We can go up as far north as we have towns. But with sunflowers, we have to stick to the southern range. But I feel that with any kind of opportunity, as far as my theory goes, we could expect something like 250,000 acres in western Canada. That would be the estimated acreage, in my opinion, suitable for growing sunflowers. Another thing that has been a problem is harvesting. We have been harvesting with anywhere from 12 to 20% moisture. They have to be dried in our plants or by the farmers before storage. This means it can't come from the field and go directly to storage. It has to be handled differently and this, of course, is a little more complicated. Those are things that we will have to grind out before we see the sunflower moving forward. And also I feel that we need an export market in order to have a little more competition rather than be confined to domestic competition.

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