

Helmand Valley Crop and

Insect Survey July 1973

by

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This survey was conducted on settlers farms in three areas of the Helmand Valley, East Shamalon, Marja and Nad-i-Ali. The following conclusions and figures should be observed with considerable caution as the area and the number of people (16 farmers) interviewed was very small.

Only settlers were interviewed as it was felt that they farmed their own land and did a considerable amount of their own work and so their answers would be more reliable and accurate. Sixteen farmers were interviewed in four days and their farms inspected by the writer. All answers or comments are the farmer's thoughts not the writer's, except as noted.

It was felt that information on how the farmer thought he was doing and what he could do to improve his position would be of interest, as well as seeing what his problems were in the growing of his crops. Settler's answers did not materially differ from area to area and for the purpose of this report are combined except as noted:

The first question asked was "How long had the settler been on his land?" East Shamalon average was 12 years, Marja average was 15 years and the Nad-i-Alli average was 21 years.

The second question was "How many jeribs did he farm?"; East Shamalon average was 18 jeribs, Marja 22 jeribs and Nad-i-Alli 31 jeribs. This difference in average was explained by the fact that when the land was assigned, the farmer was given less of the better class land and more of the poorer grade land to farm. This distribution now with chemical fertilizer and adequate drainage loses some of its validity. It did appear, however, that the farmer with less acreage, farmed more intensively and left no fallow land after wheat.

The third question was, "How many people did his farm support?" The average for all areas was 11.6 people per farm or 2.1 jeribs per person. It is estimated by this writer that minimum subsistence living on irrigated land in this country requires 1/2 jerib per person.

The fourth question concerned average yields of wheat, maize, and cotton for the last 3 years. All farmers interviewed stated that they used fertilizer and improved wheat seed for the last 3 years.

Wheat yields were 565 kg/gerib or 42 bushels/Acre, maize (all double planted after wheat) 477 kg/gerib or 37.4 bushels/Acre. Cotton Spring Planted 1112 pounds/gerib. Cotton (double cropped after wheat) 375 pounds/gerib.

The double cropping of cotton after wheat is a new experience in the valley and yield data is available for only two years 1971 - 1972. If farmers act quickly after harvest, double crop yields of cotton should rise considerably. One field inspected was planted after wheat on May 20<sup>th</sup>, and should yield close to spring planted cotton.

HAVA Extension Department could be of service by explaining the necessity for early planting to get good yields.

The economics of Wheat Vs. Cotton, and double cropping of cotton and maize with the past years average yield figures and July 1973 prices follows:

Economics of Wheat, Maize and

Cotton in July 1973

No. 1 seed cotton	90 Afs/Seer
Spring planted yield - 111.2 Mann/Jerib	6227 Afs
No. 1 seed cotton	56 Afs/Mann

Double cropped yield - 37.5 Mann/Jerib	2100 Afs
Wheat 22 Afs/Mann = yield 124 Mann/Jerib	2728 Afs
Corn 12 Afs/Mann = yield 105 Mann/Jerib	1260 Afs

**Gross Profits**

Wheat and corn double cropped	3988 Afs/Jerib
Wheat and cotton double cropped	4828 Afs/Jerib
Cotton spring planted	6227 Afs/Jerib

38.8% of land surveyed is double cropped.

1 Mann = 10 pounds approximately

1 Jerib = 1/2 Acre "

1 Seer = 16 pounds "

1 Afghani = 1.6 cents July 1973

The fifth question was "What acreage did you plant in the various crops in 1973?" Of 345 jeribs reported as being cropped:

249 Jeribs planted to wheat

65 Jeribs double cropped with maize

44 Jeribs spring planted with cotton

53 Jeribs double cropped with cotton

3 1/2 Jeribs spring planted with melons

16 Jeribs doubled cropped with mungbeans

25 Jeribs in grapes

5 Jeribs in tree fruits

18 1/2 Jeribs in other crop alfalfa, vegetable, etc

72% of the land surveyed was planted in wheat in 1972 - 1973 season.

38.8% of the land was double cropped, with maize, cotton, or mungbeans. It was estimated that in 1973, wheat acreage was down 10% and yields were down 15%, because of a dry cold winter and a fast hot spring.

The sixth question was on the availability of human labor. More than half the farmers stated that they need extra laborers at wheat harvest time and cotton picking season.

The seventh question was on the availability of animal power. All settlers interviewed had at least one pair of oxen and two had tractors. When extra help at plowing time was needed, tractors were hired.

Cost of hired tractors was 150 Afs per jerib for plowing and 50 Afs per jerib for chisel plowing.

The eighth question was on the supply of water and drainage. One farmer stated that he did have water drainage problems on part of his farm Nad-i-All, two farmers

reported some shortage of water at peak use periods in Marja because the canal was too small but 13 out of 16 reported no problems.

The ninth question was "Is your land level enough to farm without problems?" All farmers stated that they had no problems in irrigating and felt their land was level enough to farm satisfactorily. Observations made by the writer indicate that some of the land in East Shamalon was not level by any means, but farmers had leveled small fields and it appeared they were doing a good job of irrigating.

The tenth question was on fertilizer use. All farmers interviewed used fertilizer at or near recommended rates. All farmers bought their fertilizer on credit and all farmers but one stated that they needed credit to buy fertilizer, however the writer has some reservations about the universal need of credit for the purchase of fertilizer.

The eleventh question was on insects or disease effecting their crops in past years.

Army worm on wheat, aphids, white fly and cutworm on cotton, aphids on melon and grasshoppers on newly emerged wheat in the fall were mentioned in the interviews.

During inspection of the farms by the writer, the following conditions were observed. Heavy mite infestation in south Marja on cotton and melons. Light infestation of mites on cotton in Grishk area. Moderate to heavy leaf-hopper infestation in all cotton fields examined in all areas.

Fusarium root rot in one field of cotton in East Shamalon. Heavy infestation of mites and aphids in many melon fields and melon fly noted in several.

No indication of white fly or spiny bowl worm were seen on cotton at this time in areas inspected. (White fly, spiny bowl worm and aphid are the most serious pests of cotton in the Helmand Valley and still have an opportunity to do damage this year).

Three fields of sesame were examined in the Helmand Valley and all were heavily infested with borers.

The twelfth question was on weed problems. Most all farmers stated that weeds were becoming increasingly a serious problem particularly grass types in wheat and cotton. The increase in double cropping and the use of fertilizer are probably major contributors to the increased weed problems in the valley.

The thirteenth question was "Does the farmer think he had any problems in the marketing, transportation, or storage of his crops"? The answer from all farmers was "No problems". This may be a case of not really understanding or not knowing anything better to compare with. In other questioning two farmers complained about difficulties in delivering cotton to the cotton mill in Lashkar Gah.

The fourteenth question was on difficulties encountered at harvest time. Most farmers mentioned the need for extra labor at wheat cutting time and at cotton picking time. The cost of laborers has risen almost double in the last two years.

The fifteenth question and last question was "How do you think you as a farmer can do better and make more money from your farm"?

Answer number one was get a tractor and mechanize so that we can do a faster and better job of farming.

Answer number two was the increased use of fertilizer and the use of better farming methods.

Answer number three was to watch market prices and plant the most profit-making combination of crops. It



appeared that the differences in profit potential between wheat and maize, wheat and cotton, and spring planted cotton was well understood. (A sizable increase in spring cotton planting should result in 1974 if the price of wheat and corn remains low).

Answer number four was to plant fruit or grapes that gave higher profit per jerib. Farmers in Marja and Nad-i-All express doubts that they could grow fruit trees and melons successfully as they do not seem to grow well in these areas because of high water tables. The idea of growing grapes met with a favorable response except that it took five years from time of planting until the first profitable crop. No grapes are being made into raisins in the Helmand Valley that the writer knows of, as they are in Kandahar.

**Summary:**

It appears to settler farmers that mechanization is the key to increased production in the Helmand Valley. This presents some difficult problems because of credit and lack of capital. The settlers, even though they have lived on their land for as long as 21 years, still do not have

there final ownership papers. If this could be corrected credit and cooperative tractor buying could possibly be accelerated.

The last three years have been good for the settler farmer because of high prices of wheat and maize, cotton now appears to be the next crop that has a profitable out look for good farmers. It is a crop, however, that requires more skill in planting, weeding, and insect protection. Cotton growing faces at least 8 insect pests in the valley, three of which can cause serious losses in quantity and quality of the crop. Melons appear to be a favorable crop in the Shamalon area but transportation, market and insect problems probably limit acreage to no much more than now grown.

Oil seed crops may have some hope but insects on sesame and pollenization problems on sunflower may not allow any large acreages.

Grapes grow well, but lead time for getting into this crop limits the rapidity by which the acreage can be increased.

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