

UNITED STATES GOVERNMENT

Memorandum

TO : Dr. Raymond W. Hooker, DP

DATE: March 2, 1974

FROM : Richard B. Scott, DP

SUBJECT: The Switch from Mexipak to Local Varieties of Wheat:
Interviews in the Shamalan, February 1974, Helmand Valley

This memo reviews the findings of an informal survey done in the Shamalan valley in conjunction with a flour mill resurvey. The purpose of this survey was to check on the hypothesis that because of the high fertilizer prices farmers are turning away from Mexipak types of wheat and returning to local, indigenous varieties. My findings, in brief, did not support this hypothesis at all, that the farmers were not changing varieties but that there would be less wheat planted by mainly the larger land owners in competition with cotton. This survey was limited to the Shamalan. I use the term "Mexipak" throughout this report because it is one of the ways local farmers express the general class of improved wheat found in the Valley.

Between Feb 6 and Feb 19 I completed a resurvey of the Shamalan Flour Mills studied 2 years previously. This covered the full length of the Shamalan from the village of Basharan in the north to the bridge at Darwishan in the south, an area about 60 Kms. in length. It involved gathering information from millers and farmers on about 50 mills in the area, both past and present. In more than 90 percent of the cases, after the initial interview, I asked a series of questions on the relative amounts of Mexipak vs. local varieties of wheat brought in to be ground, the relative amounts of the two being grown in the area, the changes that had occurred since last year, and the effects of the increase in fertilizer prices on patterns of planting. To begin, I suspect, it is significant that no one, farmer or miller, mentioned the price of fertilizer influencing what variety they have planted.

Before this survey got under way, interviews were had with the head of extension in Girishk and with a past wholesaler for AFC in the Marja, Nad-i-Ali, Shamalan and Darwishan areas, according to his statement. The extension man in Girishk noted that with the increase in fertilizer prices there was a mass movement in the shift from Mexipak to local varieties. He had no figures available to support his statement, however. The wholesaler made about the same statement with the exception of Nad-i-Ali where he said the salt levels required that Mexipak be continued planted. Local varieties do not do well in that area, he said, because



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of the salt. This, apparently, is a doubtful statement and is the opposite to what some Shamalan farmers said. Considering the farmers experience in the matter and that the local varieties must have developed some salt tolerant characteristics through time in this salty region, I suspect the wholesaler's statement to be basically incorrect.

The statements of the Shamalan millers and farmers were relatively consistant, there were no gross contradictions, which is a wonder considering the range of persons questioned. There was no hesitation, and in many cases wonder at the questions on what variety was generally milled and grown in the area, definately Mexipak. The Mexipak flour was said to produce more bread per mon of flour but there were qualities of taste, moisture and consistancy that were generally condemned. In one case, it was suggested that pure Mexipak bread would cause stomach trouble. The desired pattern for milling was to mix varieties, up to 50 percent, Mexipak for quantity, local varieties for quality.

Aside from eating, the local varieties of wheat had a number of advantages which tended to be repeated by those interviewed. As previously noted, a not uncommon statement was to the effect that some land was unsuited for Mexipak wheat: salty areas and grossly infertile spots unless fertilizer was used. These areas should have to be planted in local varieties. One farmer mentioned that Mexipak straw when ground up for animal feed tended to turn to dust and was not as good as local variety straw.

An important item noted by many and can be seen in operation in the field during this late winter season is the cultural practice of cutting the green growth of the local varieties back to ground level for use as animal feed. This is probably the chief source for green feed during late winter and early spring seasons. The local wheat at present is 8-10 inches high and with a heavy growth, while a field of Mexipak has a 2-3 inch growth and barely has a green look about it. The local can be, and is consistantly, cut back for feed. Mexipak cannot be cut back. These fields are then watered and harvested at their regular time, although later than Mexipak, with little or no loss associated with the process. This is the season for a field survey of the relative amounts of the varieties planted because of the contrast in green. As one farmer pointed out, the local varieties trend to be planted nearer the village where they are handy for cutting and feeding to the animals. The limited number of responses on percentages of local variety planted tended to be in the range of 10-15 percent but that this was not a change from last year.

When questioned about the effect of the higher price of fertilizer on planting, the farmers' response was that they would either put earth on the fields (a local practice of spreading a very thin layer of earth on the fields brought from the canal banks or old walls or elsewhere with the belief that it adds to the soil fertility), or they would put the limited quantities of manure available, or they would put much less commercial

fertilizer. The effects of these practices on Mexipak are not known clearly since they would be complicated by variables such as basic soil fertility and residual effects of past practices in fertilizing. One possible effect would be that unfertilized Mexipak could produce less wheat than unfertilized local wheat.

One farmer noted that in the past he paid 850 Afs for two bags of fertilizer (1 of DAP and 1 of Urea) for which he now paid 1105 Afs. The official prices are:

<u>Last Year</u>	<u>This Year</u>
DAP 450	DAP 484
- on credit	- cash
Urea 400	Urea 422
850	906

The difference between this years official price and the price stated by the farmer is due to the lack of actual price control when the farmer buys; the wholesalers and retailers when selling to farmers can sell at any price that the market can stand.

If we figure, for simplicity, that these two bags would fertilize two jeribs (the recommended amounts are 1/2 bag DAP and 1 bag Urea per jerib), and using the 1970 Farm Economic Survey (G. P. Owens) on yields of 33.1 mon (1 mon = 10 pow) per jerib for local varieties and 101.9 mon per jerib for high yielding varieties, or Mexipak, (these are average yields for the Helmand Valley), and present wheat prices of 25 Afs per mon of clean local and 27 Afs per mon of clean Mexipak, the value of the wheat would be 1655 Afs per 2 jeribs of local/and 5504.6 Afs per 2 jeribs of Mexipak. Two jeribs equals approximately one acre. This is a big difference, too big to be missed by the farmers. But they do intent to cut their expenses on the 41.7 percent increase in the price of fertilizer. In any case, I suspect you can do more with these figures than I have.

A number of farmers and millers indicated that cotton has been and will be to a greater extent this year double cropped after the wheat harvest. This point was made very clear in the Khalaj area. I suspect that this pattern demands the wheat variety to be the early maturing Mexipak. The cotton crop expected was said to be perhaps 1/4 to 1/3 more than this past year but that this did not effect all farmers equally. The larger landowners, Khans, were said to be increasing their land in cotton by these amounts. The smallest, basically subsistence farmers were said to be near the limits of what they could plant in cotton. For them wheat production comes first, for consumption, then for sale of the surplus. An important variable to watch as the wheat is harvested, is the main direction in the second crop for all strata of farmers.

To conclude, this "survey" was a kind of after-thought of the mill survey but the answers were so consistent as to eliminate in my mind any major confusion of what was being said. The results raise questions on the hypothesis of a major switch back to local varieties, at least in the Shamalan. I suspect the hypothesis to be basically incorrect for the Valley. The fact that some areas in regions like Khusud and Darweshan have high rates of local variety plantings this year does not necessarily indicate a change.

A quick reporting, accurate, systematic monitoring system of crops planted, and, later, yield figures, could be useful to the Mission as well as to HAVA, some kind of quick, seasonal Farm Economic Survey.

cc: AGR
HAVR
DD
Emb/Econ
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