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NOTE ON AGRICULTURAL PRICE POLICY - 1968 INDIA WHEAT PRICE SUPPORT

By John W. Mellor.

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Department of Agricultural Economics, Cornell University

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## Notes on Agricultural Price Policy -

### 1968 Wheat Price Support

#### Summary

This note discusses the factors which might cause a precipitate drop in the price of the red dwarf wheats, following the April 1968 harvest, accompanied by a widened spread between the price of the red dwarfs and the desi varieties and a consequent unfortunate effect on plantings of red dwarfs next year and hence on next year's total wheat crop. It is the potential for a wide harvest season price spread between the red dwarf and the white desi varieties which concerns me because of its effect on next year's plantings of red dwarf varieties. If I am correct in my concern, it may be necessary for the Government of India to purchase wheat considerably in excess of the one million tons originally suggested by Agricultural Prices Commission. I believe it would be unfortunate if PL 480 were reduced in response to these factors. Indeed, prior understanding of the forces at work might forestall unfortunate precipitate action in regard to PL 480 in the event of a sharp fall in wheat prices. I presume that substantial purchases of wheat in April-May period would require substantial financial, physical storage and administrative resource.

#### The Likely Price Position as of a Few Months Ago

In my note on foodgrain prices for 1967-68, of October 6, 1967, I assumed 1967-68 production of 95 million tons of foodgrains, imports of 6 million tons, building of a 1 million ton buffer stock. From this I estimated a foodgrains price index for April, 1968 between 146 and 175 and a most likely index of 153. Consistent with this would be an estimate of wheat prices between Rs. 63.00 and Rs. 76.00 per quintal with a most likely price of Rs. 67.00 per quintal.

I now feel considerable confidence that these were good estimates of what prices would be in an unfettered situation, given the assumptions. The official index has indeed been dropping sharply since September. It appears that the official index has in the last few years been significantly biased compared to the prices that would have prevailed in an unfettered market and it also appears that storage stocks built up, at least in the case of wheat, have been larger than normal.

#### Changes in the Aggregate Foodgrains Situation in the Last Few Months

Although a bumper rabi crop is still by no means certain, it seems very likely that rabi production will be more than 3 million tons greater than previously estimated, suggesting a total production of 98 million tons of foodgrains; also, it seems likely that imports will be at least 1 million tons greater than I assumed. Thus total availability will be up 4 million tons from my earlier assumptions. If we assume a buffer stock build up of

3 million tons instead of 1 million tons, then this is still a net addition of 2 million tons. Assuming a simple model of direct effect on prices through a price flexibility coefficient of 2.0, we would expect the price index to drop 4 percent in response to this net addition of 2 million tons (in effect 2 percent); giving a new range of 140 to 168 on the index and a most likely level of the index of 146. This change in availability and hence in estimated prices is, of course, very small relative to other sources of error in the estimate and should not be considered as significant. Thus, my concern is not with the aggregate situation but with the special pressures on wheat and more particularly of the red wheats.

### Special Features of the Wheat Situation

There are three special features of the current situation which give me greater concern about wheat pricing than the aggregate figures suggest for foodgrains as a whole.

1. The increase in aggregate foodgrains availability over the earlier estimate is concentrated in wheat.

2. Private storage stocks of wheat following last year's harvest seem to have been unusually large. As a result there has been a seasonal decline in wheat prices, causing substantial financial losses in storing of wheat this year. A normal, although not certain, reaction to this would be heavier than normal selling and less than normal storage after harvest next year. This tendency would be reinforced if interstate price differentials disappeared, as I think is likely for wheat following the next harvest. Smaller than average stocking need not depress level of prices for the year but would result in excessively depressed harvest season prices and then a larger than normal seasonal price rise. If farmers' production decisions are influenced more by harvest season prices than by season average prices, then such a pattern would be unfortunate, particularly in a period in which rapid technological change and increase in input use is in process and when expectations concerning prices are poorly developed due to the radical changes of the last few years. Although one certainly cannot count on simple alternation in profits from seasonal storing of wheat, it is relevant that such storage profits from wheat were very large in 1964 and 1966 and were negative in the alternate years of 1965 and 1967.

3. Following from, but of much more concern than the above, is the distinct possibility that in a precipitous post harvest season price decline the red dwarf wheats might fall in price much more than the desi varieties. There is a good deal of uncertainty as to what the proper free market relationship should be between the red dwarfs and the white desi varieties. It would be my guess that 10 to perhaps 15 percent discount would be about right. It is, however, my impression that the range in discount last harvest season varied considerably and that 20 percent discounts were not uncommon. My point is that with uncertainty about the "proper" price relationship and in a situation of sharply declining prices, the price of the red wheats might decline much more than the whites perhaps fluctuating widely in price also, but in

any case creating considerable uncertainty in farmers' minds concerning the price discount of the red varieties. The proportion of red wheats in production will of course, be much higher this year than last year. Any offsetting factor of build up consumer stocks is unlikely to effect the red wheats as much as the white.

If the supply of a seed of white dwarf wheats were to be adequate to displace the red dwarfs than I would not be concerned on this point. But it is my impression that seed quantity of the white dwarfs cannot be adequate next year. If planting of dwarf varieties next year were largely limited to the white dwarfs, I presume that there would be a significant decline in total dwarf planting and hence a significant decline in total production. Indeed, the very fact of existence of white dwarfs may be further discouraging to planting of red dwarfs in that farmers may take the position that with a large and uncertain price discount on the reds, they will plant desi until the white dwarfs are available. In this situation there will be a further problem of adulteration of the white dwarf seed. Farmer behavior, although consistent with economic rationale in the long run, is not always so economically rational in the short run particularly in the face of considerable uncertainty. Thus the turn against the red dwarfs might be greater than pure costs and returns would suggest as rational.

There are, of course, many ifs in this analysis. Perhaps private storage will be just as much after this coming harvest as normal; perhaps in any case price pressure on wheat will not result in abnormal disparities between red and white wheat prices; perhaps farmers will not cut back on the red dwarf even in response to abnormal price disparities. Perhaps a more likely reason for the above concern to be misplaced is that I may have substantially underestimated the "unfettered" market price that will prevail. Already the Punjab and Haryana prices are down in the area predicted—and this before the new crop comes in. But U. P. is still way above the price level. My judgement is that the new harvest will pull U. P. down to the level in the other major states; but, of course, I may have misjudged this. However, past experience suggests that each of the possibilities I suggest is very real even though not certain. There is solid logic from past experience to support each of the assumptions I have made. The question then arises concerning the cost of being prepared to meet these eventualities.

#### Reduction in PL 480

In my view one of the most unfortunate responses to the eventualities suggested above would be a reduction in PL 480. Indeed, one of the primary purposes in bringing these possibilities to attention is to prevent hasty action in regard to PL 480. In my view PL 480 has a potential to contribute very substantially to total development in India, it is not just an addition to food supplies in a narrow nutritional sense. The challenge is how to order development so that the net benefits of PL 480 are maximized.

Particularly relevant to meeting the price problem raised for wheat is

my view that the danger in regard to wheat prices arises primarily from two inter-related temporary or short term factors: (1) a sharper than normal seasonal fall in wheat prices after this coming harvest; (2) even more important, the possibility of that decline falling more heavily on the red dwarf wheats than on the white desi varieties.

#### Government Support Purchases

The best policy for preparing for the short term price problem indicated above is to prepare to buy for government account a much larger quantity than has been publicly discussed so far. I don't know how much this quantity would be, but to take something out of the air, I would guess this would call for purchasing at most 4 million tons of wheat—and I repeat that I have little basis for making this estimate. There are three problem areas in making such purchases: (1) financial, (2) physical storage facilities, and (3) administrative organization. It is conceivable that any one of these problem areas could be major and could stand in the way of quick decisive purchases at the time when they are most needed. It might be that the necessary support could be provided by withholding sales of PL 480 wheat. It is, however, possible that the new channels of flow for wheat would not open immediately and this would not meet the problem of price disparity which I raise.

The amount of wheat to be purchased in a support program would presumably be related to the price at which the support was set. In view of the nature of my concern, I believe that it would be far better to have a fully effective support at a relatively low level than an ineffective and rather randomly applied one at a much higher level. This should be one of the most important considerations in setting a support price and one on which realism is called for in appraising both the financial and the physical storage capacity. Effectiveness is particularly important given the premise that the great danger is not so much a decline in wheat prices in general as that of a large and perhaps unnecessary widening of the discount for the red dwarf wheats.

#### Optimal Level of Support

Considering all the factors, I suggest the optimal level of support for wheat prices for the 1968 harvest period to be Rs. 65.00 per quintal. This as a floor would be the price for the red wheats. I would expect the white desi wheats to sell 10 percent higher at say Rs. 70.00 to Rs. 73.00 per quintal. Rs. 70.00 per quintal would be at about 100 percent of parity (using the average relationship to industrial products 1952-53 to 1964-65 as parity) which by historical standards provides a greatly increased incentive given that the cost of production of wheat is sharply down this year due to (a) unusually good weather and (b) rather widespread use of new technologies and inputs which are sharply cost reducing. The above relationships leave the price of red wheats at about between 90 and 95 percent of the above parity. This is, of course, an extremely favorable price cost situation compared to the historical average since in the case of the red dwarfs we are dealing with

the specific subset of production which has experienced radical cost reduction through changed technology.

#### Alternative of Supporting at a Range of Rs. 72.00 to Rs. 78.00 per quintal

It is my understanding that supports have been announced at a range of Rs. 72.00 (which would presumably apply to the red wheats) and up to Rs. 78.00 for the better grades. It is my guess that given this range all purchases after next harvest when presumably to proportion of red wheat will be greatly increased, will be of the red wheats, since I assume the market will impose a wider price spread than the less than 10 percent indicated by the support range. This will provide support for the red wheats at above historical parity level for white wheats and for production that occurred at greatly increased efficiency and hence reduced relative costs. If political factors dictate such a level of support, I do not see a major long term harm, if it can be made effective. If it is likely that support at Rs. 72.00 per quintal would not fully be effective and that Rs. 65.00 would be, then I would argue strongly for the lower level.

#### The Price Spread Between Red and White Wheats

As indicated above, I have no basis for a fully supported position concerning the spread which will or should prevail between red and white wheats. I assume that it would be virtually impossible (and not particularly desirable) next year to prevent a spread of 10 percent or somewhat more. Likewise I suppose that historical relationships between wheat prices and coarse grain prices would keep the spread to less than a maximum of 25 percent, except in a short term situation of a temporarily demoralized market for red wheats.

I see no reason why a price spread of ten percent should significantly discourage planting of red dwarfs next year, since the cost of production under conditions of good water control is much more than ten percent lower than the cost of production of the desi varieties. I think that for the better managed with excellent conditions even a 25 percent price discount would be more than balanced by lower costs of production. However, my argument is that at some point greater than say a ten percent discount, there is a distinct possibility of farmers switching away from the red dwarfs, perhaps to some extent irrationally, of course. It is this possibility for which I wish to urge a defense. My concern also lies with the outside possibility of a temporarily demoralized market for red wheat widening the spread in some places and times more than 25 percent with a consequent deleterious effect on certainty regarding prices.

In conclusion, I want to make it clear that my whole point is about a possible problem of modest proportions for which I suggest only a modest solution. Even if the red wheats decline greatly in price, the effect on production will presumably be limited primarily to the 1968-69 crop year. After that year I assume that white dwarfs will be available to the maximum extent needed and the price of red wheats then becomes irrelevant. There may, of course, be a small carryover effect on innovation on the part of farmers who may feel they were burned in a previous effort at innovation, and likewise

some of this problem may continue with the white dwarf wheats, which I presume are fully acceptable in appearance, but which probably still do not match varieties like P 591 in cooking quality.

In defense of all these pages on a minor problem, I suggest that it is on problems of this magnitude that economists have the best chance of making a positive contribution to the development process!