higher, depending on whether rice was cultivated in a mono-culture or sequentially cropped system. The same profit margin declined, on average, to about 15 percent in 1980, which reflected the uneven incidence of cold weather and disease problems. Although the cultivation of the HYV has generally resulted in greater profits on both "operational and economic" accounts, there have been substantial variations in the profit margin from region to region.

The calculations in the tables assumed a uniform government purchase price for all varieties of rice. In interviews with several farmers we found that they could frequently obtain as much as 15 or 20 percent higher prices for the traditional varieties (japonica) on the free market: many consumers still seem to prefer japonica to Tongil rice in spite of the fact that there is virtually no difference in the taste, especially when rice is freshly cooked. Thus, if we assume that the price of the japonica was 15 percent higher in 1980, profitability can be shown as no higher for Tongil rice than for the TV. In other words, per hectare yield in the HYV had to be at least 15 percent higher in order to be economically profitable.

2. Effect of HYV on the Labor Market

The cultivation of the HYV was relatively more labor-intensive. This may be explained by the fact that Tongil varieties require more intensive cultural care and a longer gestation period. For 1980, output yield per man hour was about 3.3 kg per 10a (one-tenth of a hectare) in both varieties. As more of the rice area is cultivated with the HYV there will be a growing demand for labor in rural Korea. Effective labor is already in scarce supply in Korea. The dissemination of the high-yield farming technology is likely to accelerate the process of "tractorization" in Korean agriculture.

3. White Potatoes, Barley, Wheat, and Soybeans

Another crop that has continued to yield positive "economic profits" is white potatoes. Despite the profitability in potatoes, there has been a declining trend in the planted area and the total production since 1975. The profit rate from the cultivation of white potatoes is not only low relative to that from the more widely-demanded vegetables and fruits, but also many Koreans consider white potatoes as an "inferior" good. Their consumption increases only when other major staple food supplies decline. Also, since the consumption of potatoes is small relative to that of other foods, the potato market may be considered as volatile with prices highly sensitive to changes in demands for other foods.

For other crops, our calculations show that barley and wheat for both 1977 and 1980 incurred net losses in economic profit if unpaid returns to farm owners' resources are included in the production costs. However, "operating profits" become positive if only the actual paid-out costs are taken into account. In particular, barley is traditionally a second important staple food (next to rice) in the Korean diet.