CHAPTER X

AGRICULTURE

1. Main Developments

The gross agricultural product expanded in 1971/72 by 12.1 percent at constant producer prices, surpassing the previous year's 10 percent gain, as well as the average for the 1960s and that for the past five years (see Table X–2).

Total agricultural output (at constant producer prices) likewise went up at a relatively vigorous rate compared with the last two periods, but compared with 1970/71 growth slackened somewhat—from 9.6 to 8.6 percent. The deceleration was mainly due to the standstill in citrus output, and also to the smaller percentage rise in the output of livestock farming. Excluding citrus, the total agricultural output expanded a shade faster than in 1970/71—by 11 as against 10 percent.

The accelerated growth of the past two years is largely explained by the favorable natural conditions for most crops: abundant and well-distributed rainfall and few outbreaks of disease or pests.

As a result, there was a much smaller real increase in purchased inputs—3.3 percent as against 10 percent in 1970/71. Almost every item contributed to the slowdown, but most of all feedstuffs (see Table X–8), which accounted for about 43 percent of the total, and water. The ample rainfall and its favorable distribution may be credited with the saving in water consumption, the smaller percentage rise in outlays on pesticides, and the greater use of local grain (whose output expanded appreciably) in place of imported feed. Also contributing to the deceleration in the purchased feed input were the increased use of cheaper components of equal nutritive value (due to technological changes) and the substitution of farm wastes for part of the concentrated feed. Both these trends had begun in 1970/71, but were spurred in the year reviewed by the sharp rise in the price of imported feed during the past two years.

The uptrend in producer prices of total agricultural output slowed in 1971/72 —11.3 percent as against 14.4 in the previous year. But excluding citrus, where a 36.4 percent rise had been posted in 1970/71 because of the much higher prices fetched abroad, there was a slightly faster advance in the year reviewed—11.2 vs. 9.3 percent.

Purchased input prices climbed conspicuously in 1972/73 (see Tables X–1 and X–8), after a sizable increase the year before; presumably this discouraged the use of other items besides purchased feeds.

Table X–1

CURRENT ACCOUNT OF AGRICULTURE, 1970/71[a] AND 1971/72

(IL million, at current prices)

	Value		Percent increase or decrease (–) in 1971/72		
	1970/71	1971/72	Value	Quantity	Price
1. Total output at producer prices	2,568.3	3,103.4	20.8	8.6	11.3
2. Less: Agricultural intermediates	188.0	247.1	31.4	10.6	18.9
3. Agricultural output at producer prices	2,380.3	2,856.3	20.0	8.4	10.7
4. Less: Subsidies on output[b]	107.9	140.9	30.6	1.9	28.1
5. Agricultural output at market prices	2,272.4	2,715.4	19.5	8.7	9.9
6. Less: Purchased input	987.4	1,178.9	19.4	3.3	15.6
7. Gross agricultural product at market prices	1,285.0	1,536.5	19.6	12.9	5.9
8. Less: Depreciation	182.9	224.2	22.6	6.9	14.6
9. Net agricultural product at market prices	1,102.1	1,312.3	19.1	19.3	4.5
10. Plus: Subsidies on output[b]	107.9	140.9	30.6	1.9	28.1
11. Net agricultural product at producer prices	1,210.0	1,453.2	20.1	12.9	6.4
12. Plus: Drought compensation, etc.	17.8	15.0	–15.7		
13. Total income from agriculture	1,227.8	1,468.2	19.6		
14. Less: Wages of hired labor	282.0	346.3	22.8		
15. Less: Interest and rent	90.0	110.0	22.2		
16. Income of farm owners from agriculture	855.8	1,011.9	18.2		

[a] Revised figures.
[b] The change in quantity reflects the real change in subsidized output; the change in price reflects the change in the average subsidy rate per unit of subsidized output.

Since purchased input prices outpaced the rise in noncitrus output prices during the past two years, the net agricultural product at producer prices went up in 1971/72 by a modest 6.4 percent, compared with 14 percent for the gross national product at factor cost.

This stands out all the more against the backdrop of the steep jump in the world prices of most tradable farm commodities during the past two years or so. This was only partly reflected in Israeli farmers' cash receipts from marketings, since the Government, which controls the prices of those tradables that became dearer, refused to authorize a price rise in order to keep consumer prices stable.

Table X–2

INDICATORS OF AGRICULTURAL DEVELOPMENT, 1962/63 TO 1971/72

(percent annual real change)

	Average 1962/63–1971/72	Average 1967/68–1971/72	1969/70	1970/71	1971/72
Total output	5.9	5.5	5.7	9.6	8.6
Purchased input	4.9	7.0	8.2	10.4	3.3
Gross agricultural product	6.5	6.2	4.2	10.1	12.9
Total investment in agriculture	2.7	10.8	18.7	1.8	13.1
Gross capital stock	4.1	4.4	3.8	4.0	3.8
Number of employed[a]	–1.9	–0.1	–2.6	2.1	6.9

[a] Including workers from the administered areas. The annual change in the average number of workers during the decade 1962/63–1971/72 and that during the five-year period 1967/68–1971/72 were calculated according to calendar-year data for 1963–72 and 1968–73 respectively. The changes in 1969/70–1971/72 were calculated according to data for agricultural years. All estimates were calculated according to the old sectoral classification of the Central Bureau of Statistics.

SOURCE: Based on Central Bureau of Statistics data, except for the changes in the capital stock, which were calculated according to estimates of A. L. Gaathon (of the Bank of Israel) and CBS data.

The rising world prices were nonetheless relayed directly to producers in the case of exported commodities such as cotton, and indirectly in the case of livestock products, where final product subsidies compensated farmers for the dearer cost of imported concentrated feed components (cereals and pulses) as factor subsidies were pared. In the case of poultry-meat, only the price to the producer rose—through the instrumentality of guaranteed minimum prices, which were raised to allow for the higher cost of feed; Government subsidies on imported frozen meat kept down the consumer price of poultry-meat. Finally, in respect to such products as sugar beet, cotton, and local cereals and pulses, domestic prices went up, but not commensurately with the world trend, as the Government prevented increases because of the same considerations that had sometimes induced it in the past to prop up prices higher than the world market level.

The trailing of some prices behind the world level reduced the cost of the dollar saved on import substitution, though not always to the point of making their production economically worthwhile. It may therefore be assumed that the lag in 1970/71 and 1971/72 in noncitrus farm product prices behind GNP prices acted as a brake on the expansion of agricultural output, at least in those branches where production could be readily stepped up. The experience of livestock farming—where it is easier to isolate the effect of output-input price relationships than in crop farming with its output rigidities due to the water constraint—would seem to confirm this assumption, as output in 1971/72 ad-

vanced only 5.1 percent at constant prices, compared with 9 percent in the previous year.[1]

Data on farm employment (including workers from the administered areas), obtained from manpower surveys and the labor surveys of the administered areas, show a 9.1 percent larger labor input (as measured in man-hours) in the sector in the year reviewed. This rise contrasts oddly with the long-run declining trend evident since the late 1950s (see Table X–2), as well as with the overemployment that characterized the economy as a whole in the year under review. What is more, it would mean that agricultural productivity rose only 3–5 percent, which does not seem plausible in a year of such favorable natural conditions. This points to a possible bias in the manpower survey data for the year.

Income originating in agriculture (the net agricultural product at current producer prices) was up 20.1 percent, after an unprecedented 30 percent gain the year before—attributable mainly to the combination of an excellent crop and a steep export price rise in citrus. The 1971/72 increase was due principally to a 12.9 percent real growth of the net agricultural product, compared with an increase of only 6.4 percent in product prices (17.3 percent in 1970/71). The comparatively low rise in the latter in relation to both GNP prices and the price of agricultural output, is explained by the fact that purchased input and depreciation went up much faster than agricultural output prices (see Table X–1). At market prices, i.e. after deducting direct output subsidies, the farmers' net product prices rose even less—4.5 percent as against 19.1 in the previous year—for direct output subsidies increased greatly in 1971/72 (see Table X–1). The main commodities that were more heavily supported were milk, poultry-meat, and eggs; the Government compensated farmers for the higher cost of purchased feed by allowing them to charge more for milk and eggs and by setting a higher guaranteed minimum price for poultry-meat.

Compensation payments for drought and other natural damage dropped further in 1971/72, with the result that total income trailed behind the gain in income originating in agriculture (see Table X–1). Wage expenditure and outlay on interest and rent continued to rise sharply (see Table X–1), so that the increase in farm proprietors' income from agriculture came to 18.2 percent, as against 30 percent the year before. Income from agriculture per nonhired worker is as yet unclear, owing to the doubtful reliability of the data on the change in the input of nonhired labor.[2]

[1] If the appreciable expansion of the livestock inventory in dairy farming in 1971/72 (see Table X–5) is included in the output of livestock farming, the figure rises to 6.8 percent as against 9.1 in the preceding year.

[2] If we accept these data, which point to a 7.6 percent rise in the input of nonhired farm labor, the increase in their average hourly income was 9.8 percent—a little less than the rise in the consumer price index. If we assume that the input of such labor remained constant, then hourly income went up faster than the consumer price index.

Real gross investment in agriculture, including water projects, was up 12.9 percent at constant prices, compared with 3.4 percent in the previous year. Excluding irrigation and afforestation, the respective figures were 13.1 and 1.7 percent. All component items shared in the accelerated growth, except machinery and equipment. Particularly noteworthy were the 120 percent increase (at constant prices) in the livestock inventory, reflecting the rapid expansion of cattle farming, and the larger expenditure on farm structures, due both to the expansion of cattle farming and the continued growth of poultry flocks. The investment increases in fruit farming and afforestation were the first in over a decade (except for a one-time rise in afforestation in the 1967 recession year).

The year's advance in real gross agricultural investment (excluding afforestation) continued the upward trend that has persisted since 1967 (in 1972 the growth rate slowed somewhat), after a steady decline in 1958-66.[3] This relatively heavy investment led to a 3.8 percent growth of the sector's real gross capital stock (following a 4 percent rise the year before).

Outstanding institutional farm credit was up IL395 million, or 28 percent, compared with IL230 million (19 percent) the year before (see Table X–13). All component items showed increases—both directed and nondirected bank credit and that supplied by financial institutions. The increase reflected a faster rise in agricultural investment (27.3 percent in current prices, compared with 13.5 the year before) and in the total value of agricultural output (20.8 as against 25.4 percent).

2. Output

(a) *Destination of output*

The weight of marketed output in total farm output edged down from 86.3 percent in 1970/71 to 85.6 percent at constant prices and 85.2 percent at current prices. This reversed the advancing trend evident from the early 1960s, and is explained by the more sluggish growth of marketed output in both current and constant prices compared with that retained on the farm (see Table X–3). Most of the growth in the latter was accounted for by a very respectable gain in both agricultural capital goods (see Tables X–3 and X–5) and intermediates—mainly cereals such as barley and sorghum, whose acreage was enlarged in 1971/72 and which benefited from the favorable weather. The higher output of capital goods is chiefly attributable to the 120 percent increased investment in dairy herds, but orchards and afforestation, which had been on the decline for years, also registered substantial gains (see Table X–5).

[3] See Bank of Israel, *Annual Report 1971*, p. 226.

Table X-3

TOTAL AGRICULTURAL OUTPUT, BY DESTINATION, 1970/71 AND 1971/72

(IL million, at current producer prices)

	Value		Percent increase or decrease (–) in 1971/72[b]		
	1970/71[a]	1971/72	Value	Quantity	Price
Output marketed					
Direct domestic consumption[c]	926.0	1,102.3	19.0	8.0	10.2
Industry	626.6	764.6	22.0	8.9	12.1
Direct export	662.8	778.4	17.4	6.5	10.3
Total	**2,215.4**	**2,645.3**	**19.4**	**7.8**	**10.7**
Output retained on farms					
Own consumption	100.6	114.6	13.9	3.4	10.1
Capital goods	64.3	96.4	49.9	37.9	8.7
Agricultural raw materials	188.0	247.1	31.4	10.6	18.8
Total	**352.9**	**458.1**	**29.8**	**13.5**	**14.4**
Grand total	**2,568.3**	**3,103.4**	**20.8**	**8.6**	**11.3**

[a] Revised figures.
[b] Rates of change have been calculated from unrounded figures.
[c] Including the value of crops destroyed.
SOURCE: Central Bureau of Statistics.

The value of marketed output at constant prices, on the other hand, grew more slowly than in 1970/71; quantities rose by 7.8 percent as against 10.5 percent, and prices to the producer by 10.7 as against 15.4 percent.

Direct domestic consumption, sales to industry, and exports were all affected by this trend, but it did not extend to every product group. In exports the deceleration was due to the standstill in citrus. Here the value of overseas sales remained about the same in the case of grapefruit and early oranges (this followed an unprecedented expansion of production and exports in the previous year), while the prices received for Shamuti and Valencia oranges receded somewhat. Noncitrus exports, on the other hand, expanded more quickly than in 1970/71 in both physical and price terms. Most component items contributed to the stronger advance. With regard to flowers, seedlings, and ornamental plants, avocados, meat, and fish this was the result of a planned expansion of supply; in respect to cotton and some other crops the reason was a bumper yield. Substantially higher prices were received abroad for field crops, vegetables, potatoes, melons, and eggs. All this brought up the share of noncitrus exports both in total export (from 28 percent in 1970/71 to 34 percent) and in total farm output (from 7.3 to 8.5 percent).

Sales to industry were up 8.9 percent in real terms, with prices to the farmer rising 12.1 percent. Excluding livestock products, the figures were 17.3 and 14

Table X-4

DIRECT AGRICULTURAL EXPORTS, 1970/71 AND 1971/72[a]

(IL million, at current producer prices)

	Value		Percent increase or decrease (–) in 1971/72[c]		
	1970/71[b]	1971/72	Value	Quantity	Price
Field crops	62.9	89.6	42.5	23.9	15.1
Vegetables, potatoes, melons	39.0	50.6	29.7	10.6	17.3
Noncitrus fruit	20.3	28.9	42.2	28.1	11.0
Eggs	11.8	20.1	70.6	35.6	25.8
Meat	15.9	19.5	22.3	15.0	6.3
Fish	1.0	5.6	432.2	391.8	8.3
Flowers, seedlings, ornamental plants, and vegetable seeds	30.5	43.1	41.7	28.5	10.3
Misc. livestock and livestock products	5.4	7.0	30.0	17.5	10.6
Total, excl. citrus	**186.8**	**264.4**	**41.5**	**24.2**	**14.0**
Citrus	476.0	514.0	8.0	–0.4	8.4
Total, incl. citrus	**662.8**	**778.4**	**17.4**	**6.5**	**10.3**

[a] Including exports to the administered areas.
[b] Revised figures.
[c] Rates of change have been calculated from unrounded figures.
SOURCE: Central Bureau of Statistics.

percent respectively, compared with 33.5 and 6 percent the year before. The continued rapid uptrend is attributable mainly to the favorable weather, which substantially boosted the quantities of wheat, cotton, and olives available to industry; sales of wine grape were also up strongly. Citrus, which had accounted for 32 percent of the incremental sales to this destination in 1970/71, was back to a modest 5 percent owing to the zero growth of output. All in all, the share of industry among the purchasers of farm output (excluding livestock products) continued upward, in line with the trend noticeable for several years, although in 1971/72 this was more the result of weather conditions than of planning.

The quantities of local produce supplied for direct domestic consumption, including processed livestock products, were up 6.4 percent in 1971/72, and consumer prices by 8.9 percent. If imported frozen meat and milk powder are included, the figures are a little higher—6.7 and 9.5 percent respectively. The prices in this group of products therefore declined in relation to the general price level. At the same time, per capita consumption of these items (including the aforementioned imported commodities) was up only 3.3 percent, compared with a 5.5 percent rise in per capita private consumption as a whole. This illustrates the low elasticity of demand for food, expenditure on which apparent-

ly decreases, relative to total spending, as real per capita income rises. The prices received by farmers for output supplied for direct domestic consumption slightly outpaced the rise in market prices in 1971/72—9.5 vs. 8.7 percent—owing to the heavier direct subsidization of such commodities as milk, eggs, meat, and fowl.

The picture by product groups is uneven. Meat sales (including imported frozen meat) rose 8 percent in real terms, with consumer prices moving up about 10 percent—somewhat less than the general price level. As in 1970/71, the biggest gain (14.5 percent) was scored by poultry-meat—14.5 percent (compared with an even faster 21.6 percent the year before). But whereas in 1970/71 this commodity had substituted mainly for imported frozen meat, whose retail price had been raised by about 30 percent, and the per capita supply of fresh beef had remained practically unchanged, in the year reviewed poultry-meat substituted for local fresh beef, supplies of which were reduced by about 6 percent due to the expansion of the dairy herd and the consequent 30 percent drop in the number of cows and heifers slaughtered. Per capita consumption of imported frozen meat, whose price dropped relative to that of fresh beef, was up 2.5 percent in 1971/72.

Demand for milk and milk products continued to expand rapidly, this time by 4.2 percent. Prices, which are controlled, receded about 4 percent in relation to the consumer price index. Egg consumption fell for the second year in a

Table X–5

OUTPUT OF AGRICULTURAL CAPITAL GOODS, 1970/71 AND 1971/72

(IL million, at current prices)

	Value		Percent increase or decrease (–) in 1971/72[b]		
	1970/71[a]	1971/72	Value	Quantity	Price
Orchards	20.1	26.0	29.4	15.9	11.6
Livestock	15.8	37.1	134.8	120.6	6.2
Land reclamation and conservation, drainage, pasture, etc.	12.4	14.8	19.4	9.7	8.8
Afforestation	16.0	18.5	15.6	5.0	10.1
Total	**64.3**	**96.4**	**49.9**	**37.9**	**8.7**

[a] Revised figures.
[b] Rates of change have been calculated from unrounded figures.
SOURCE: Central Bureau of Statistics.

row, despite a decline in the relative price. The reason may lie partly in a change in consumers' preferences which went undetected in the previous year, when egg prices had been raised: meat, milk, and eggs all supply animal proteins, and the marked rise in the per capita consumption of poultry-meat and milk and milk products surpassed what might have been expected on the basis of price and demand elasticities alone. While this explanation is merely conjecture, support may be found in the fact that it is highly improbable that the increase of some 11 percent in per capita consumption of poultry-meat (after a 17 percent rise the year before) and of 4.2 percent in per capita consumption of milk and milk products (after a rise in the previous year as well) were due solely to the decline in their relative prices.

Citrus and other fruit sales for direct domestic consumption were up 12.4 percent in physical terms, with producer prices advancing 9 percent; growers received 19.5 percent more for vegetables in the wake of a 2.5 percent drop in supplies.

(b) *Output by type of farming*

1. Livestock

The real output of livestock products advanced 5.1 percent in 1971/72, compared with 9 percent the year before. All subbranches reported more sluggish increases (see Table X–6), but as far as cattle farming is concerned, it was no more than the by-product of a very rapid growth of dairy farming, which cut down the slaughtering of cows and heifers, and hence meat production, to the point where the combined output of meat and milk was merely a notch above 1970/71.

In 1970/71 one might have expected that the rising world prices of most tradable livestock products would induce an increased production of import substitutes. But while in the year reviewed world prices continued upward—except for powdered milk and butter, which dropped, though not to their previous lows—yet import substitution did not take place. In fact, the consumption of such imported items as frozen meat, powdered milk, and butter rose. For frozen meat this is explained by the fact that its relative retail price was kept steady by heavier subsidization, and in relation to local fresh beef it even became cheaper.[4] Had frozen meat prices been allowed to rise, poultry-meat prices might also have gone up, making it worthwhile for producers to exceed the output quotas for which they had been guaranteed minimum prices well above the actual market prices that prevailed throughout most of the year. As it was, the quotas were adhered to.

Nor did import substitution take place in dairy farming. Imports of powdered

[4] Until the end of 1970 the retail price of frozen meat was higher in Israel than the world price (at the official exchange rate), so that consumers were paying an indirect duty; but beginning in 1971 the world price rose above the local price.

milk and butter actually increased, as local output, though expanding rapidly, was unable to keep up with demand.[5]

The Government took various steps to encourage the expansion of output in both these subbranches. Poultry-meat production quotas were raised, milk quotas were temporarily suspended, producer prices were raised to compensate for dearer feed, and directed credit was allocated for putting up more structures and purchasing equipment. While output rose as a result, the increase was apparently not enough for import substitution.

Since cereals and pulses are the main ingredients in purchased livestock feed and the world prices of those two commodity groups rose along with those of livestock products, this tended to depress the ratio of producer prices to input prices in livestock farming and acted as a brake on expansion. Hence a slight drop in output was registered in egg farming, where the Government did not take any of the above steps.

(*i*) *Cattle farming*

The real output of cattle farming held virtually steady in 1970/71, after inching up 1.9 percent the year before (see Table X–6).[6] But whereas in 1970/71 both milk and meat posted very mild increases, this year trends were mixed: the former rose 5.4 percent, as against 2.5 percent in the previous year, while the latter was down 5.9 percent. The two developments were connected: the accelerated expansion of milk production necessitated the expansion of the dairy herd, which in turn resulted in a 30 percent reduction in the slaughter of cows and heifers and hence a smaller supply of meat to the market.

Some of the producers, particularly kibbutzim, had begun to enlarge their dairy herds in 1970/71, partly by reducing the slaughter of cows and heifers to the point where the average milk yield per cow edged down 0.3 percent. The producers were clearly anticipating a change in the Government's milk quota policy, since supplies were not keeping up with demand (see *Annual Report 1971,* pp. 208–10). The Milk Production and Marketing Board therefore suspended the quotas for the three years 1971/72—1973/74 and allowed dairymen to step up production as much as they wished; it undertook to purchase all the milk at the guaranteed price. The result was a rise of over 120 percent (at constant prices) in investment in the country's stock of domestic animals (see Table X–5). The quotas are to be reviewed in 1973/74.

The much greater demand for milk in 1971/72 (up 7.7 percent) stemmed

[5] This is not to imply that it would be worthwhile for the local economy to turn out the whole range of milk products. Even at the present high world price level for tradable milk products, it is cheaper for Israel to import nonfluid milk products than to produce them.

[6] If the output figures for cattle farming are adjusted to include the increase in the livestock inventory, output expanded by 6.4 percent in real terms in 1971/72, compared with 2.5 percent the year before.

not only from the growth of population (3.3 percent) and the increase in real disposable income per capita (8.9 percent), but also, as we have seen, from the continued decline in the price of milk and milk products (about 4 percent) relative to the consumer price index.[7] Local production, which increased only 5.4 percent, was unable to keep pace. Consequently, powdered milk imports rose in 1971/72 by nearly 50 percent; this brought up the weight of complementary imports in the domestic consumption of milk and milk products from 6 percent in 1969/70 and 10.1 percent in the following year to 12.9 percent.

Kibbutzim and moshavim shitufiyim accounted for all the incremental milk production in 1971/72, as their output expanded by 13.5 percent; output in moshavim actually fell 0.4 percent.[8] This differential development appeared in the previous year, and it is likely to grow more pronounced for several reasons: (1) The kibbutz is better equipped to deal with the peculiar working hours and other hardships entailed in dairy farming. (2) Many of the family farms have herds of ten head or less and are therefore inefficient. (3) For economies of scale a minimum of 25–30 milk cows are required, but the requisite capital for setting up units of this size can rarely be mobilized by moshavim, particularly in view of the unavailability of directed credit for dairy farming (in contrast to the cultivation of export crops, for instance).

The profitability of dairy farming at a given national level of input and output prices is improving noticeably with the shift in milk production from the moshav to the kibbutz farms.

The Institute of Farm Income Research has found that the larger dairy farms in the kibbutz sector (with herds of 300 head or more) are nearly twice as profitable as the larger dairy farms in the moshav sector (30 cows or more). It also found that kibbutz herds of less than 200 cows are unprofitable and, as in the moshav, the kibbutz tends either to expand the herd to the profitable level or to liquidate it.

Per capita consumption of fresh local beef continued downward in 1971/72; but whereas in the previous year supplies had not decreased and yet prices rose appreciably, in the period under review the advance of prices sagged somewhat, despite a sizable 9 percent decline in supplies. The reason lies in the fact that frozen meat prices held steady, making it cheaper relative to fresh beef in 1971/72 than in the previous year and boosting frozen meat consumption by 2.5 percent.

[7] Another possible reason for the heavier demand is consumption by the population of the administered areas, where cow milk production is limited and consumption habits may be influenced by Israeli patterns. Israeli milk and milk products are sold to the administered areas, but marketing statistics are not classified by destination in a way that permits the isolation of the figures.

[8] Kibbutzim are communal or collective villages; the moshav is a cooperative smallholders village; the moshav shitufi is based on a collective economy, but each family owns its own house (as in the moshav).

Table X–6

CURRENT AGRICULTURAL OUTPUT,[a] BY TYPE OF FARMING, 1970/71 AND 1971/72

(IL million, at current producer prices)

	Value		Percent increase or decrease (–) in 1971/72[c]		
	1970/71[b]	1971/72	Value	Quantity	Price
Livestock					
Poultry					
Eggs	209.3	239.2	14.3	–2.3	17.0
Meat	307.6	382.0	24.2	14.5	8.4
Miscellaneous	7.8	8.6	10.9	10.8	0.1
Total	**524.7**	**629.8**	**20.0**	**7.8**	**11.4**
Cattle					
Milk	205.1	233.4	13.8	5.4	8.0
Meat	132.7	140.5	5.9	–5.9	12.6
Miscellaneous	14.2	15.5	8.8	6.1	2.5
Total	**352.0**	**389.4**	**10.6**	**1.2**	**9.4**
Other livestock					
Milk	30.0	30.7	2.2	3.0	5.4
Meat	56.9	76.7	34.8	12.0	20.4
Fish	64.4	75.8	17.6	4.2	12.8
Miscellaneous	9.2	9.5	3.8	–5.7	10.0
Total	**160.5**	**192.7**	**20.0**	**5.1**	**14.3**
Total livestock	**1,037.2**	**1,211.9**	**16.9**	**5.1**	**11.2**
Crops					
Citrus	565.4	632.4	11.9	0.2	11.7
Other fruit	248.3	319.3	28.6	22.8	4.7
Vegetables	188.1	229.0	21.7	2.4	18.9
Melons	32.9	38.0	15.4	20.4	–4.2
Potatoes	36.6	41.6	13.7	0.8	12.8
Cereals and pulses	92.8	150.1	61.7	46.3	10.5
Industrial crops	181.6	222.4	22.5	6.4	15.1
Fodder	64.0	79.1	23.0	2.0	21.8
Flowers, seedlings, and ornamental plants	36.3	52.7	45.0	34.6	7.7
Miscellaneous[d]	20.9	30.5	45.7	29.1	12.9
Total	**1,466.9**	**1,795.1**	**22.4**	**9.8**	**11.5**
Total current output	**2,504.1**	**3,007.0**	**20.1**	**7.9**	**11.3**

[a] Marketed output, on-farm consumption, and intermediate goods (agricultural raw materials).
[b] Revised figures.
[c] Rates of change have been calculated from unrounded figures.
[d] Includes straw, green manure, forest products, citrons, and vegetable seeds.
SOURCE: Central Bureau of Statistics.

(*ii*) *Poultry*

Real output in poultry farming was up 7.8 percent in 1971/72, compared with the previous year's 14.2 percent (see Table X–6). The deceleration was due to the cutting-back of egg production for both consumption and breeding and the smaller percentage rise in meat output—14.5 percent vs. 21.6 percent in 1970/71, still an impressive rate. Per capita consumption of meat of all types also rose substantially—by 11 percent as against 17 percent the year before. This strong upswing was not connected only with the rising level of real disposable income per capita, or with the changes in the relative prices of the various types of meat or in their supply; presumably it also reflects a change in consumers' preferences in favor of frozen poultry-meat.

Guaranteed minimum prices to the farmer were raised about 8.5 percent during the year (see Table X–6), with a view to ensuring that production quotas are fully met. This entailed a 65 percent increase in meat subsidies. The 8.5 percent hike was less than the rise in the general price level. On the other hand, the price of the poultrymen's main current input—purchased feed—rose 16.1 percent, i.e. more than the general price level. Exactly the same two-way squeeze had taken place in the previous year. In other words, poultry-meat production in Israel was able to expand substantially for two consecutive years despite the deterioration in the branch's terms of trade, and presumably in its profitability as well. It may therefore be assumed that the quota constraint is of economic value. Poultry-meat farming need not worry about either land or water. Capital and labor are the only factors limiting growth when quotas are expanded. The labor is generally provided by the farmers' own family, and capital apparently did not impose a constraint on the expansion that took place in the past two years, as funds were made available from the Government's development budget to encourage poultry-meat production.

Egg output for the table edged down 0.5 percent at constant prices. Large egg surpluses had accumulated in the previous year, as the paring of the per unit subsidy had made it relatively more profitable to produce in excess of quotas; in addition, the rise in the consumer price relative to the general price level had depressed per capita consumption. Part of the surpluses was stored and the rest exported at a loss. The Poultry Board then took a number of steps to curb output, but they were only partially successful because its control over egg production had been undermined by the cuts in subsidies.[9] In April 1972 the subsidy was raised appreciably in order to offset the rise in feed prices, restoring the effectiveness of the Board's control over production. However, this was too late to greatly affect the figures for the agricultural year, which runs from October to September; hence the limited extent of the output decline. By the first quarter of 1972/73 flocks had been pared down to the point where an egg shortage arose when the cold winter reduced laying percentages.

[9] The greater the gap between the subsidized producer price and the market price, the more effective is the Board's control of production.

The reduction of laying flocks was sharp enough to produce a net drop of 10 percent in the output of hatching eggs for meat and laying flocks combined.

Domestic egg consumption per capita fell 5–6 percent, notwithstanding a drop of about 4 percent in its price relative to the general price level. This, together with the high output during most of the year, resulted in a surplus as big as that in 1970/71. Consequently, even more eggs than in the previous year —an increase of 65 percent—were marketed abroad, at a loss to the national economy (there had been no export in 1969/70). The share of this item in total exports accordingly rose from 4.1 percent in 1970/71 to 6.8 percent in the year under review.

Egg prices to the producer averaged 10 percent higher in 1971/72—less than the increase in the general price level. With feed up even more, the farmer was subject to the same two-way squeeze in terms of trade and profits as in the case of poultry-meat. As a result, egg output began to contract, and it would probably have fallen more were it not for the composition of the labor input: the producers are mostly moshav farmers, and the labor in their poultry runs consists largely of their parents, other family members, and other secondary earners residing on the farm.

2. *Crops*

Crop production continued upward in real terms—by 9.8 percent, following the previous year's 10.6 percent gain; the figures are even higher without citrus—15.8 and 11.8 percent respectively. Whereas in 1970/71 the increase had stemmed from both planning and favorable natural conditions, the latter was alone responsible for most of the gains of 1971/72. The main improvements were scored in noncitrus fruit, field crops, cotton, and flowers, seedlings, and ornamental plants. On the other hand, little or no increase in yields was registered in industrial crops other than cotton, in vegetables, fodder, and citrus.

Producer prices rose in the aggregate more slowly than in the previous year —by 11.5 as against 16.2 percent. But excluding citrus, whose prices soared in 1970/71 and moved up more mildly in the year reviewed, the picture is reversed—11.4 as against 6.3 percent. Without citrus and other fruit, the increases were 14.1 and 6.6 percent respectively. In other words, in 1970/71 producer prices for those crops whose planning horizon is only one year declined significantly in relation to the consumer price index. This may partly explain why in 1971/72 the bulk of the incremental output of such crops was due to natural conditions, i.e. it was unplanned.

(a) *Citrus*

Citrus output was practically unchanged either in quantity or in value in comparison with the previous year (see Table X–7), when the crop had expanded by 20 percent in tonnage terms and by 8.3 percent in constant-price terms.

The prices received by growers for all markets averaged 11.7 percent higher in the year reviewed, as against 36.4 percent the year before. The main contributor to the continued rise was the domestic market for direct consumption, with a price increase of 34 percent (due to the Citrus Marketing Board's monopoly). Industry paid 28 percent more, while prices of exported citrus went up 8.7 percent following an unprecedented 50 percent spurt in 1970/71 —only grapefruit and early oranges fetched better prices, while Shamutis and Valencias lost ground.

The Shamuti crop was bigger than in the previous year, and larger quantities were marketed to every destination, industry leading with a gain of over 25 percent. Some marginal fruit of export quality was even marketed locally. The crop of grapefruit and late oranges, on the other hand, decreased, and the quantities sold to every destination were lower. In the aggregate, the quantities of all citrus taken by industry were only 5 percent greater in the year reviewed, but this came on top of a 65 percent jump in 1970/71. The rise in producer prices stemmed partly from a heavier subsidization and partly from the higher prices contracted with the processing plants.

Table X–7

CITRUS OUTPUT, BY ECONOMIC DESTINATION, 1970/71 AND 1971/72

	Quantity ('000 tons)		Value at current producer prices (IL million)		Percent increase or decrease (–) in 1971/72[b]		
	1970/71[a]	1971/72	1970/71[a]	1971/72	Value	Quantity	Price
Direct export	858.6	859.0	476.0	514.0	8.0	–0.4	8.4
Industry	535.3	570.9	51.9	69.6	34.3	4.9	28.0
Domestic consumption[c]	91.7	94.4	31.9	43.1	35.0	0.8	34.0
On-farm consumption	28.0	28.5	5.6	5.7	1.6	1.6	0.0
Total	**1,513.6**	**1,552.8**	**565.4**	**632.4**	**11.9**	**0.2**	**11.7**

[a] Revised figures.
[b] Rates of change have been calculated from unrounded figures.
[c] Including private sales.
SOURCE: Central Bureau of Statistics.

(b) *Other fruit*

Output of noncitrus fruit was up 23 percent at constant prices, compared with 11 percent in 1970/71. The cold, rainy winter favored most of the fruit in this classification, particularly the deciduous orchards; nondeciduous fruit suffered very little damage from frost, except for bananas, whose output fell substantially for the second consecutive year.

The increase in supplies kept producer prices from rising by more than 4.7 percent. No overall price rise was recorded in the market for direct consump-

tion, which takes 80 percent of the noncitrus fruit and absorbed much larger quantities than in the previous year. The quantities sold to industry were up 66 percent, compared with 12.5 percent in 1970/71. This impressive gain was due mainly to the bumper yields as a result of the favorable weather and the yield cycle in fruit grown mostly for processing, such as apricots, olives, and table grapes. Sales of wine grapes, which are grown wholly for processing, were up about 30 percent at constant prices; this followed an increase in new plantings in the past few years due to improved export prospects for Israeli wines.

Export sales of noncitrus fruit rose 14 percent at constant prices. Avocados, with a 70 percent advance, accounted for most of the increment. The area under this crop, which is grown mostly for the overseas market, was enlarged considerably in the past few years. Banana exports shrank 35 percent due to the frost damage.

(c) *Industrial crops*

Industrial crop output rose 6.4 percent in real terms in 1971/72 (see Table X–6), as against approximately 4 percent in the preceding year. Leaders were cotton (up 9.3 percent), sugar beet (6.8), and other industrial crops (20). As against this, decreases were recorded for groundnuts (about 7 percent) and tobacco (13 percent).

From the changes in the weights of the main industrial crops within total output, which roughly continued the trend begun in 1970/71, it may be inferred that considerations of water consumption play an important role in the crop program. Although cotton enjoyed a price advantage over sugar beet in the past three years and its price rose more than that of any other industrial crop in 1971/72, irrigated cotton acreage, which dropped in 1970/71, scarcely increased in the following year. By contrast, the irrigated area under sugar beet, whose relative price moved up more slowly in 1971/72 than any other industrial crop, continued to expand, although not quite as rapidly as in 1970/71.

As noted in the 1971 *Annual Report* (p. 215), the reason may well lie in the fact that cotton competes for water with other crops in the peak consumption months of midsummer, while sugar beet requires irrigation only in the spring and fall; another factor may be the decision to keep both the country's sugar mills in production.

(d) *Cereals and pulses*

Output here rose 46 percent in real terms, following a 55 percent gain in 1970/71. In both seasons this may be credited to higher yields due to abundant rainfall; in addition, the area under barley and sorghum was expanded considerably. Wheat acreage was cut back about 4 percent in 1971/72, but the crop was still about 50 percent higher than in the previous year.

(e) *Vegetables, potatoes, and melons*

The output advance under this head slowed from 11.4 percent in 1969/70 to 7.8 and 4.5 percent in the next two years. The 1971/72 gain is composed of an increase of 2.4 percent in vegetables and 20 percent in melons; the potato crop was about the same (see Table X–6).

The slowdown in vegetables, which had scored increases of 9–10 percent in each of the previous two years, may be attributed partly to the cold, wet winter, but reduced profitability undeniably played its part: in 1970/71 producer prices for all destinations averaged a mere 1.2 percent higher. In 1971/72, with vegetable supplies for direct domestic consumption down 2.5 percent, the prices received by growers rose 19.5 percent. This destination accounted for 64 percent of the vegetable output; 13 percent was exported and 23 percent sold for processing. Vegetable exports were up only 4 percent, as against 24 percent the year before, despite the expansion of acreage. Weather conditions during the winter of 1971/72 were mainly to blame for the sagging growth rate. Other factors were the hired labor shortage and the 8 percent fall in producer prices that had taken place in the previous year notwithstanding a higher effective exchange rate for exports. Vegetable sales for processing were up 17.7 percent in 1971/72, compared with 30 percent in 1970/71.

3. Input

Inputs purchased from other sectors increased by a very modest 3.3 percent at constant prices in 1971/72, as against some 10 percent in the previous year. In 1970/71 the rise in output had roughly corresponded to that in input purchases, but in the year under review the latter trailed far behind the growth of output. Almost every component item contributed to the deceleration (see Table X–8), but the very modest 2.2 percent increase in concentrated feed purchases and the absolute 6 percent drop in water consumption were the leading causes.

A number of factors made it possible to keep feed purchases down despite the expansion of poultry and cattle farming.[10] One was the growing substitution of intermediates. Another, in cattle husbandry, was the growing use, as a substitute for purchased feeds, of cheaper waste materials originating on the farm or in farm product processing. Finally, technological improvements made it possible to alter the composition of concentrated feed in the past two years and raise the proportion of cheaper materials. One example is the growing use of dried citrus fruit peel, which is inexpensive relative to its nutritional value.

[10] It has already been noted that while the current output of cattle farming did not expand —a decline in meat must be set off against the gain in milk output—if the change in the livestock inventory is included in output, there was a 6.4 percent increase over 1970/71; and in terms of food consumption, which is what concerns us here, cattle farming must certainly be considered an expanding branch in 1971/72.

Table X–8

INPUT OF MATERIALS AND SERVICES IN AGRICULTURE,[a] BY SOURCE, 1970/71 AND 1971/72

(IL million)

	Value at current prices		Percent increase or decrease (–) in 1971/72		
	1970/71[b]	1971/72	Value	Quantity	Price
Purchases from other sectors					
Feed	427.4	503.7	17.9	2.2	15.4
Water	76.5	75.3	–1.6	–6.0	4.7
Packing materials	113.2	139.9	23.6	7.5	15.0
Fertilizers	42.9	48.5	13.1	5.6	7.1
Transportation	73.4	104.1	41.8	18.1	20.1
Spare parts, repairs, and tools	64.0	75.2	17.5	0	17.5
Fuel, lubricants, and electricity	27.1	37.9	39.9	1.1	38.3
Pesticides and veterinary preparations	82.0	100.0	22.0	2.4	19.0
Insurance and Government services	54.7	62.9	15.0	0	15.0
Miscellaneous	26.2	31.4	19.8	4.2	15.0
Total	**987.4**	**1,178.9**	**19.4**	**3.3**	**16.5**
Wages of hired labor	282.0	346.3	22.8	—	—
Interest and rent	90.0	110.0	22.2	—	—
Intermediate goods	188.0	247.1	31.4	10.6	18.9
Depreciation	182.9	224.2	22.6	6.9	14.6
Grand total	**1,730.3**	**2,106.5**	**21.7**	—	—

[a] Excluding labor and capital of farm owners.
[b] Revised figures.
SOURCE: Central Bureau of Statistics.

This substitution process was doubtless spurred by the high price of purchased feeds, which soared in the past two years.

As for water consumption, the drop was due mainly to the abundant rainfall and its favorable distribution over the winter season, which permitted a significant reduction of irrigation and other uses (see Table X–9).

The prices of all purchased inputs rose substantially in 1971/72, with the exception of water and fertilizer, both of which went up somewhat less than the general price level. The overall price rise for purchased inputs was 16.5 percent, as against 13.5 percent in 1970/71.

Both the manpower surveys and the labor force surveys of the administered areas indicate that the input of both hired and nonhired farm labor increased in 1971/72—by 11.5 and 7.6 percent respectively. No explanation can be given for these inordinately high rates. The employment position in the economy as a whole did not deteriorate, nor did the changes in the crop program entail

Table X–9

WATER INPUT IN AGRICULTURE, 1966/67 TO 1971/72

	Unit	Average for dry years[a]	Average for rainy years[b]	1966/67	1967/68	1968/69	1969/70	1970/71[c]	1971/72
Irrigated area	'000 dunams	—	—	1,616	1,645	1,662	1,727	1,735	1,790
Quantity of water	million m^3	1,176	1,135	1,115	1,265	1,235	1,330	1,335	1,255
Water consumption per dunam of irrigated area									
Actual consumption	m^3	781	716	690	769	743	770	769	723
Index (1963/64=100)		112.0	102.2	98.6	109.9	106.1	110.0	109.9	103.3

[a] Dry years—1958/59, 1959/60, 1961/62, 1962/63, 1965/66, 1967/68, 1968/69, and 1969/70.
[b] Rainy years—1960/61, 1963/64, 1964/65, 1966/67, 1970/71, and 1971/72.
[c] Revised figures.
SOURCE: Central Bureau of Statistics.

such a drastic change in the labor input. The answer probably lies in the sampling methods of the manpower surveys, which are susceptible to a statistical bias of this magnitude.

The value of intermediate inputs was up 10.6 percent, compared with 6.7 percent in 1970/71. In both years most of the increment consisted of field crops, where the abundant rainfall resulted in bumper yields.

4. Productivity

The favorable weather conditions resulted in much larger per dunam yields of noncitrus fruit, cotton, and unirrigated crops. Only citrus failed to expand, either in yields or in acreage. Input purchases from other sectors increased by a very modest 3.3 percent. A sizable rise in total productivity[11] and an even more impressive one in factor productivity[12] might therefore have been expected. Instead, if the change in the labor input is measured according to manpower survey data, the productivity gain turns out to have been quite sluggish; total productivity was up 2.7 percent and factor productivity 5 percent, compared with 6 and 12 percent respectively in 1970/71, and annual growth rates of some 4 percent even in the three consecutive drought years of 1967/68–1969/70. But since the labor input figures seem to be unreliable, no undue significance should be attached to the measured change in productivity.

5. Income

Income originating in agriculture—i.e. the net agricultural product at current producer prices—rose 20.1 percent in 1971/72 (see Table X–1), compared with a rapid 30 percent in the previous year. The main reason for the difference was the slow advance of producer prices—6.4 percent only, compared with over 17 percent in 1970/71. The respective figures for the real agricultural product were 12.9 and 10.2 percent. The slackening of the uptrend in producer prices is explained by the fact that purchased input prices and depreciation rose 16.5 and 15 percent respectively in 1971/72, while product prices advanced only 11.3 percent.

Drought and other compensation payments dropped again, this time from IL 17.8 million to IL 13.0 million, so that total income from agriculture (the net farm product at factor cost plus drought and other compensation payments) lagged somewhat behind the growth of income originating in agriculture (see Table X–1). Wage expenditure and outlay on interest and rent rose appreciably. The combined result was a more modest 18.2 percent rise in the income of farm proprietors from agriculture, after the previous year's unpre-

[11] The index of real output (including agricultural intermediates) divided by the weighted index of input.

[12] The index of real product divided by the weighted index of the labor and capital inputs.

cedented high of over 30 percent. At this stage it is impossible to tell what happened to income from agriculture per nonhired worker, owing to the doubtful reliability of the available labor input data for the year under review.[13]

Direct subsidies on agricultural output expanded in 1971/72 by over 30 percent, as contrasted with about 10 percent the year before (see Table X–10). Most of the increase was accounted for by the 28 percent hike in the average subsidy rate per unit of subsidized output; subsidized output expanded by only some 2 percent. This is because of the Government's policy of keeping down those farm product prices which it fixes—milk and eggs—in the face of the dearer cost of the requisite current inputs (particularly concentrated feed). The hiking of subsidy rates only partly compensated milk and egg farmers for the reduction of the margin between input costs and controlled market prices. Poultry-meat was also much more heavily subsidized in the year reviewed; here the minimum price to the farmer is guaranteed in order to promote production in the face of the rising world price of meat. The guaranteed price was raised in April 1972 to compensate for the higher cost of concentrated feed, one of the leading inputs in the poultry branch. This in turn brought up the volume of subsidy payments, since the market price of poultry meat was lower during most of 1971/72 than the guaranteed producer price because of expanded supplies and also because the Government kept the lid on the price of frozen beef (some items were actually reduced in price).

Price support payments to citrus and noncitrus fruit growers were also stepped up. For noncitrus fruits, the support programs operate through funds run jointly by the Government and the producers, which disburse payments when production exceeds a given level. The larger supplies in 1970/71 resulted in an increased Government participation. As regards citrus, the support takes the form of subsidies per ton marketed locally, including sales to industry.

Factor subsidies—mainly on concentrated feed and water—were trimmed in the year reviewed. In 1970/71 feed was more heavily subsidized owing to devaluation and the Government's commitment not to let this affect the price of feed to farmers, which had recently been raised; but in 1971/72 the Government again shifted from a factor to a final product subsidization. As for water, subsidy payments fell because of the reduced consumption in the year reviewed.

Total agricultural support payments—output and factor subsidies and compensation for natural damages—rose 16.5 percent in 1971/72, compared with 15 percent the year before.

[13] If we accept the manpower survey data, which indicate a rise of 7.6 percent in the input of nonhired farm labor, their average hourly earnings advanced 9.8 percent in nominal terms but declined 2.8 percent in real terms. If, on the other hand, we assume the constancy of the input of nonhired farm labor in 1971/72, their real average hourly earnings went up 5.7 percent.

Table X–10

AGRICULTURAL SUBSIDIES, 1970/71 AND 1971/72

(IL million, at current prices)

Item or type of subsidy	Value		Percent increase or decrease (–) in 1971/72[b]		
	1970/71[a]	1971/72	Value	Quantity	Price
Citrus sold to industry	8.9	10.1	13.6	4.9	8.3
Eggs	16.8	24.2	44.0	–2.3	47.4
Poultry	21.2	35.1	65.2	14.5	44.3
Cow's milk	46.2	59.4	28.4	5.4	21.8
Beef	0.7	0.3	–55.6	–5.9	–52.2
Mutton	0.6	0.5	–22.0	10.2	–29.2
Fish	0.7	1.5	128.1	4.2	118.9
Vegetables and potatoes	4.3	3.2	–25.7	2.2	–27.3
Wine grapes	1.0	1.2	18.0	30.7	–9.7
Other fruit	2.4	5.0	106.6	22.8	68.3
Groundnuts	0.2	0.1	–16.7	–6.7	–10.7
Tobacco	0.3	0.3	–12.8	–13.1	0.3
Cotton	4.5	—	—	—	—
Total subsidies on output	**107.8**	**140.9**	**30.6**	**1.9**	**28.1**
Fodder	25.3	19.4	–23.3	2.2	–25.0
Water	21.0	20.0	–4.8	–6.0	1.3
Fertilizer	3.3	3.4	3.0	5.6	–2.4
Total factor subsidies	**49.6**	**42.8**	**–13.7**	**–1.0**	**–12.8**
Drought compensation, etc.	17.8	15.0	–15.7	—	—
Total subsidies	**175.2**	**198.7**	**13.4**	—	—

NOTE: A change in quantity reflects the real change in subsidized output. A change in price reflects the change in the average subsidy rate per unit of subsidized output or input.

[a] Revised figures.

[b] Rates of change have been calculated from unrounded figures.

SOURCE: Ministry of Agriculture.

6. INVESTMENT

(a) *Investment and capital stock*

Real gross investment in agriculture (including afforestation and irrigation) increased more rapidly in 1971/72—by 12.9 percent as against 3.4 percent in the previous year. The acceleration was even stronger if afforestation and irrigation are excluded—13.1 as against 1.7 percent. Thus the year reviewed saw a continuation of the uptrend in agricultural investment, which began in 1967 and slowed temporarily in 1970/71.[14]

The more rapid expansion was evident in every investment item except

[14] See the section on agricultural investment in the *Annual Report, 1971* and *1972*.

Table X–11

ESTIMATED GROSS INVESTMENT IN AGRICULTURE, 1971–72

(IL million, at current prices)

	Value		Percent increase or decrease (–) in 1972		
	1971[a]	1972	Value	Quantity	Price
Orchards	20.1	26.0	29.4	15.9	11.6
Livestock	15.8	37.1	134.8	121.5	6.0
Farm installations[b]	78.3	98.9	26.3	8.9	15.9
Machinery and equipment	115.2	134.3	16.6	0.9	15.6
Land reclamation and conservation, drainage, natural pasture, etc.	12.4	14.8	19.4	9.7	8.8
Total investment in agriculture	**241.8**	**311.1**	**28.7**	**13.1**	**13.8**
Afforestation	16.0	18.5	15.6	5.0	10.1
Total investment in agriculture and afforestation	**257.8**	**329.6**	**27.9**	**12.6**	**13.6**
Water projects	69.9	92.4	32.2	14.0	15.9
Total investment in agriculture, afforestation, and water projects	**327.7**	**422.0**	**28.8**	**12.9**	**14.1**

NOTE: Data on investment from agricultural output relate to the end of agricultural years; other data relate to the end of calendar years.

[a] Revised figures.

[b] Farm buildings, fish ponds, and local irrigation networks.

SOURCE: Central Bureau of Statistics.

machinery and equipment, where growth slumped from 16 percent in 1970/71 to 0.9 percent (see Table X–11). The increase even included orchards and afforestation, where real investment had been drifting downward from the early sixties (except for a one-time rise in afforestation in the recession year of 1967). In neither of these items is there an adequate explanation of the 1971/72 increase. Perhaps renewed deciduous plantings were on a scale that reversed the trend of former years, when more orchards were uprooted than planted. The acreage under avocados, pecans, and other subtropical fruit continued to expand in 1971/72.

Increased investment in farm installations was a natural concomitant of the expansion of milk herds and the continued growth of poultry flocks. The standstill in machinery and equipment is hard to explain, for the life of agricultural implements is relatively short and mechanization is proceeding apace. Perhaps farmers, expecting a devaluation, made a heavier investment than usual in

1970/71 (the increase was 16 percent), so that in the following year there was less need for new equipment.

The real gross capital stock in agriculture rose for the third consecutive year —3.8 percent, as against 4.0 percent in 1970/71.

Table X-12

GROSS STOCK OF FIXED ASSETS IN AGRICULTURE,[a] 1971–72

(IL million, at current prices)

	Value		Percent increase or decrease (–) in 1972[c]		
	1971[b]	1972	Value	Quantity	Price
Orchards	1,405.1	1,593.1	13.4	1.6	11.6
Farm installations[d]	2,606.0	3,162.7	21.4	4.7	15.9
Machinery and equipment	709.5	865.2	21.9	5.5	15.6
Livestock[e]	471.5	515.2	9.3	3.1	6.0
Total	**5,192.1**	**6,136.2**	**18.2**	**3.8**	**13.8**

[a] Excluding land and financial assets. Data on investment from agricultural output (orchards and livestock) are for the end of calendar years.
[b] Revised figures.
[c] Rates of change have been calculated from unrounded figures.
[d] Farm buildings, local irrigation networks and water projects, afforestation, land reclamation and conservation, drainage, natural pasture, etc.
[e] Excluding broilers and fish.
SOURCE: Based on estimates of A. L. Gaathon (Bank of Israel) and Central Bureau of Statistics data.

(b) *Financing*

Outstanding institutional farm credit was up IL 395 million (28 percent) in 1972, compared with IL 230 million (19 percent) in 1971 (see Table X–13). The rapid rise applied equally to bank credit and that from financial institutions. Most of the incremental funds from the banking system consisted of directed credit, although farmers also received more nondirected credit in the year reviewed.

As in 1971, all the incremental funds from financial institutions came from organizations specializing in farm credit, notably the Israel Bank of Agriculture, Ya'ad Agricultural Development Bank, and Nir Ltd. In the other financial institutions the share of farm credit has been drifting steadily downward, and in 1971/72 it accounted for only 1.5 percent of total outstanding financial institution credit.

The much larger volume of institutional farm credit granted in 1972 mainly reflects the stronger expansion of gross agricultural investment (27.3 percent at current prices, compared with 13.5 percent the year before) and the continued expansion of farm production. The bulk of the incremental bank credit went to

Table X–13

OUTSTANDING INSTITUTIONAL CREDIT TO AGRICULTURE, 1971–72

(IL million)

	1971[a]	1972	Increase	
			IL m.	%
Banking system				
Credit from banks' own resources	509.0	659.8	150.8	29.6
Directed credit	351.1	476.8	125.7	35.8
Nondirected credit	157.9	183.0	251.0	15.9
Credit from earmarked deposits	129.5	161.7	32.2	24.9
Govt. and Jewish Agency deposits	50.0	51.7	1.7	3.4
Other deposits	79.5	110.0	30.5	38.4
Total bank credit	**638.5**	**821.5**	**183.0**	**28.9**
Financial institutions				
Agricultural credit funds[b]	762.0	973.1	211.1	27.7
Other financial institutions	13.4	14.6	1.2	9.0
Total financial institution credit	**775.4**	**987.7**	**212.3**	**27.4**
Grand total	**1,413.9**	**1,809.2**	**395.3**	**28.0**

[a] Revised figures.

[b] The overwhelming share of the credit under this head was granted by the Israel Bank of Agriculture and a smaller part by the Ya'ad Agricultural Development Bank, Nir Ltd., and various funds and other financial institutions.

provide working capital, while most of the funds supplied by financial institutions were for capital outlays. Whereas the total value of agricultural output rose 20.8 percent in the year reviewed, outstanding bank credit to this sector was up 29 percent (see Table X–13); and while farm investment expanded by 28 percent, the net increase in financial institution credit to agriculture came to 27.4 percent. In gross terms, the additional financial institution credit even exceeded the incremental gross farm investment.