Among farms in each economic class there is much greater variation between types in the value added than in the total value of farm products sold. Value added, as a proportion of total sales, varies considerably between types of farms for each economic class (see table 51). It is highest on fruit-and-nut farms for each economic class of farm. In general, value added was a higher proportion of the gross sales for farms with a major source of income from sales of field crops and vegetables than for livestock types. It comprised the lowest proportion of gross sales on poultry farms.

Value added was a greater proportion of farm sales on the larger than on the smaller economic classes of farms for each type. This is influenced to a large extent by the measure of value added being based upon farm products sold rather than the total value of products produced. On the smaller economic classes of farms a substantial part of the production is consumed on the farm.

TABLE 51.—ESTIMATED VALUE ADDED AS A PERCENT OF THE TOTAL VALUE OF FARM PRODUCTS SOLD, BY TYPE OF FARM BY ECONOMIC CLASS: 1954

| Type of farm | Total | Economic class of farm | | | | | |
|---|---|---|---|---|---|---|---|
| | | I | II | III | IV | V | VI |
| | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* |
| **All commercial farms** | 56.0 | 64.1 | 56.1 | 52.4 | 49.6 | 44.1 | 28.7 |
| Cash-grain | 64.6 | 75.9 | 67.7 | 60.6 | 52.4 | 37.1 | 12.3 |
| Cotton | 71.3 | 75.8 | 70.7 | 69.6 | 69.4 | 66.2 | 54.7 |
| Other field-crop | 71.1 | 75.6 | 69.7 | 70.7 | 71.3 | 68.4 | 62.2 |
| Vegetable | 72.0 | 76.0 | 68.3 | 61.6 | 56.1 | 42.5 | 23.3 |
| Fruit-and-nut | 84.3 | 86.8 | 84.0 | 80.4 | 76.6 | 69.6 | 52.3 |
| Dairy | 50.6 | 50.9 | 52.8 | 51.8 | 48.6 | 40.6 | 26.7 |
| Poultry | 13.7 | 19.1 | 12.5 | 8.2 | 4.0 | 6.1 | (1) |
| Livestock | 44.6 | 55.4 | 47.9 | 38.6 | 25.2 | 7.8 | (1) |
| General: | | | | | | | |
| Primarily crop | 64.4 | 73.0 | 64.7 | 59.4 | 53.2 | 45.0 | 34.0 |
| Primarily livestock | 47.0 | 48.2 | 53.0 | 50.5 | 40.5 | 30.5 | 16.6 |
| Crop and livestock | 52.8 | 64.7 | 57.8 | 53.2 | 43.6 | 32.3 | 17.2 |
| Miscellaneous | 81.5 | 87.5 | 79.7 | 71.2 | 58.8 | 46.4 | 21.9 |

[1] Expenses exceeded the value of farm products sold.

**Value added per man-equivalent.**—When converted to a man-equivalent basis, value added becomes a reasonably good measure of labor productivity. At prevailing levels of prices for farm products and costs of materials used in further production, it is a measure of efficiency in the use of labor resources. Value added per man-equivalent amounted to $2,800 for commercial farms as a group. (See table 52.) It was highest on fruit-and-nut and cash-grain farms, averaging $4,900 and $4,400, respectively.

TABLE 52.—ESTIMATED VALUE ADDED PER MAN-EQUIVALENT BY TYPE OF FARM, BY ECONOMIC CLASS, FOR THE UNITED STATES: 1954

| Type of farm | Total | Economic class of farm | | | | | |
|---|---|---|---|---|---|---|---|
| | | I | II | III | IV | V | VI |
| | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* |
| **All commercial farms** | 2,800 | 6,855 | 4,612 | 2,629 | 1,446 | 750 | 209 |
| Cash-grain | 4,384 | 11,271 | 6,629 | 3,602 | 2,015 | 854 | 103 |
| Cotton | 2,080 | 6,812 | 4,345 | 2,449 | 1,412 | 834 | 348 |
| Other field-crop | 2,046 | 5,241 | 4,301 | 2,731 | 1,767 | 1,088 | 468 |
| Vegetable | 3,236 | 4,318 | 2,941 | 2,168 | 1,371 | 684 | 148 |
| Fruit-and-nut | 4,939 | 6,330 | 5,136 | 3,896 | 2,809 | 1,652 | 425 |
| Dairy | 2,294 | 4,763 | 3,803 | 2,520 | 1,455 | 729 | 212 |
| Poultry | 1,141 | 3,480 | 1,375 | 534 | 161 | 148 | (1) |
| Livestock | 3,028 | 9,856 | 4,540 | 2,115 | 842 | 164 | (1) |
| General: | | | | | | | |
| Primarily crop | 2,945 | 6,026 | 4,211 | 2,555 | 1,451 | 769 | 260 |
| Primarily livestock | 1,981 | 5,047 | 4,478 | 2,539 | 1,195 | 549 | 148 |
| Crop and livestock | 2,407 | 7,097 | 4,692 | 2,684 | 1,275 | 566 | 136 |
| Miscellaneous | 3,937 | 5,053 | 4,304 | 2,936 | 1,792 | 987 | 173 |

[1] Expenses exceeded the value of farm products sold.

Most other types of farms ranged between $2,000 and $3,000 value added per man-equivalent. The exception was poultry farms with about $1,100 per man-equivalent.

Value added per man-equivalent was highest for Class I farms of each type and decreased with each successively smaller economic class. On Classes V and VI farms it was far below the average for commercial farms as a group.

**Value added per $1,000 of capital investment.**—This is a measure of efficiency in the use of capital resources. The value added was divided by the total investment in land and buildings, machinery and equipment, and livestock inventory. This is expressed in terms of value added for each $1,000 of total capital investment in table 53.

In general, farms with a major source of income from fruits and nuts, vegetables, and field crops had a higher product added per unit of capital used than types with a major source of income from livestock and livestock products. The exception was cash-grain farms.

TABLE 53.—ESTIMATED VALUE ADDED PER $1,000 OF CAPITAL INVESTMENT IN LAND AND BUILDINGS, MACHINERY AND LIVESTOCK INVENTORY, BY TYPE OF FARM BY ECONOMIC CLASS, FOR THE UNITED STATES: 1954

| Type of farm | Total | Economic class of farm | | | | | |
|---|---|---|---|---|---|---|---|
| | | I | II | III | IV | V | VI |
| | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* | *Dollars* |
| **All commercial farms** | 124 | 225 | 127 | 102 | 86 | 62 | 27 |
| Cash-grain | 110 | 183 | 124 | 96 | 71 | 39 | 8 |
| Cotton | 222 | 271 | 186 | 189 | 214 | 195 | 106 |
| Other field-crop | 238 | 339 | 231 | 244 | 241 | 188 | 100 |
| Vegetable | 257 | 351 | 197 | 139 | 98 | 52 | 18 |
| Fruit-and-nut | 235 | 318 | 219 | 170 | 122 | 70 | 32 |
| Dairy | 127 | 203 | 149 | 126 | 95 | 58 | 24 |
| Poultry | 74 | 213 | 83 | 35 | 11 | 10 | (1) |
| Livestock | 80 | 168 | 93 | 59 | 29 | 6 | (1) |
| General: | | | | | | | |
| Primarily crop | 132 | 218 | 128 | 108 | 86 | 50 | 25 |
| Primarily livestock | 92 | 172 | 139 | 104 | 65 | 36 | 13 |
| Crop and livestock | 97 | 188 | 124 | 96 | 64 | 38 | 14 |
| Miscellaneous | 326 | 626 | 256 | 161 | 99 | 52 | 16 |

[1] Expenses exceeded the value of farm products sold.

Cash-grain farms, among the highest in value added per man-equivalent, were among the lowest in value added per unit of total investment. Cotton and other field-crop farms were among the lowest in value added per man-equivalent but were relatively high in value added per capital investment. For fruit-and-nut farms the value added was relatively high on both bases. It was relatively low on both bases for dairy, poultry, and other livestock farms.

By economic class of farm the value added per unit of total investment is highest on Class I farms and decreases with each successively smaller economic class. For most types, however, the differences between economic classes are relatively small compared to the substantial differences between these classes in the value added per man-equivalent.

Due to the limitations involved in making these estimates, no precise conclusion may be drawn regarding the specific amounts of value added per man-equivalent or per dollar of investment. However, it appears reasonable to conclude that (1) value added per man-equivalent and per dollar of investment is extremely low on the smaller economic classes of farms; low in relation to agriculture as a whole and also in relation to that obtained in nonfarm sectors of the economy and (2) for any given type of farm their amounts are directly associated with the size of the farm business.