

AGRICULTURAL PRODUCTION AND MARKET DURING YEARS 1956—1961

The exceptional increase in the rate of agricultural production reached in the year 1961 (10,9% relative to the level in the previous year) discloses a particularly clear comparison with the rate of increase at the mid-year during the 1956—60 period which amounted to 3,7%. Similarly in comparison with that established in the current five year plan (1961—65) which amounted to 3,4% in 1961. The index, nevertheless, represents an exception. This exceptional situation of agriculture in 1961 expresses itself furthermore in that the high increases appeared during two consecutive years. In 1960 the increase in agricultural production amounted to 5,4% in spite of the fact that during 1960 the difficulties caused by the 1959 drop in production had to be alleviated, while on the other hand 1961, based on the agricultural situation of the previous year, gave satisfactory results.

It should be stressed that the increased rate in vegetable production in the years 1960 and 1961 was greater than in livestock production. This forms a somewhat advantageous fodder situation for the farm year 1961—62.

During the period 1951—1961, the presence of an almost functional link ($r = 0,991$) between the value of animal production of the current year and the results of the equation, returns (for the years 1951—1961) for the value of animal production of a given year and that of vegetable production for the previous year were obtained by way of extrapolation — the index of production rise of animals in 1962 as compared to 1961 to the extent of 7,5%, greater than the analogical index determined according to the farming plan, 5,6%.

The basis of the exceptionally large increase in the 1961 agricultural production was the high yields reached in crop production, particularly corn (18,1 q/hectare), a record in the of our agriculture and exceeding all estimates based upon existing production trends. Of the amount of deviation from the 1954—60 trends of crop production by the four cereals, it was concluded that 1,2 q/hectare of the 1961 crop could be put down to advantageous atmospheric conditions. The highest developmental tendencies by corn crops during the last years was shown under co-operative production (the direction index trend = 0,9 q), insignificantly lower in state farms (0,8 q), and notably lower in individual

farms (0,5 q). On the other hand the fluctuation in the production of corn crops in state and co-operative farms was twice as great than in individual farms. This is explained by the greater stabilization in individual farms during this time, particularly through the extent of the cultivated area represented by separated strips.

Results obtained show that, of the individual types of corn, the greatest fluctuation in production is characteristic of rye, and the smallest by barley. It was also proved for individual cereals, based upon the deviation from the characteristic trend of production for the years 1954—60, that the largest positive change was in wheat, followed by oats and barley. These types of corn determined also in the main part the increase in the four corn crops.

It was also proved that the tendency of increase in corn crops definitely differed in voivodship sections: the difference between the extreme voivodships in almost four fold. It should be noted that a higher tendency of increase by the corn crops occurs in voivodships with a better agricultural level, which implies a deepening of the extent of crops in territorial sections.

Similarly it was proved that the higher the level of the corn crops in individual voivodships, the lower their fluctuation. A similar condition is found with potato crops.

In the case of potato crops, the extent of differentiation between voivodships is shown to be almost two fold lower than in corn. It is characteristic however, that a different series of voivodships occurs with regard to the height of potato crops than in relation to corn crops. It is a fact that the lowest level of potato crops is in the southern voivodships, in spite the highest stock of cattle per 100 hectares (supplying farmyard manure) and an excess of labour. This is probably caused by the heavy soils. The higher dynamic of growth is potato crops in the last years which is shown in the voivodships of the Weestern Lands.

In the sphere of fodder balance for the last years it is possible to prove an advantageous relationship between fodder stocks and an increase in animal production, which shows a clear improvement from the formerly strained balance. This is related to the rebuilding of certain reserves in this sphere in the last five years, by proportioning the share of vegetable production as marketable and non-marketable goods. With the relatively rapid rise of vegetable production (mid-year rate of 3,7%) and the constant increase of imported corn, there occurred in agriculture the provision of concentrated fodder, so that, of vegetable produce the share of non-marketable goods increased absolutely and relatively at the cost of marketable goods.

The unsatisfactory increase in bulk fodder, particularly hay, has, in the last five years, prevented the development of cattle. In the structure of fodder stocks, changes, although slow, were proved. They were characterised by an increase in the share of concentrated fodder and a reduction in the share of potatoes. Certain tests for estimating the effectiveness of pasturing indicate a relative stability or a very weak changeability over a period of time. An analysis of quantitative connections in the sphere of forage grazing on corn or potatoes by pigs in the years 1952—1960 showed that the starting point of the fattening system

is the corn balance. However, the extent in the economy of grazing on potatoes is adapted not to the stocks of fodder potatoes, but to the norm of forage grazing on corn and, after their mediation, to the corn balance. The norm of grazing on corn is shown in the character of primitive standards, while that of potatoes in a character of a supplementary standard.

Analysing the development of farm livestock in 1961 serious structural and quantitative changes were confirmed. Increases in livestock herds were more than doubled, while cattle increased one and a half times as much as the plan for the year estimated. The decrease in the number of sheep, apparant since 1955, continued, along with a further decline in the number of horses.

A study of the development of cattle in 1961 and for the last 5 years shows a clear tendency to increase. In former years it was decided that the possibilities of increase in this sphere were restricted. This caused a conflict between the increase of cows and young cattle. The keeping of cows in herds, a process to check the deficiency in mature cols, and a decrease in the rearing of young cattle dates from 1957, and is a direct result of the removal of the compulsory milk supply and the raising of the price of dairy produce to a level above the compulsory sale prices. The fact that peasant farms restricted themselves exclusively to utilizing immediate possibilites stands out clearly for, with the rising profitability of producing milk at the expence of the rearing of young cattle, there occur many difficulties which they will be unable to overcome in a short time, mainly caused by the simultaneous development of both cattle livestock and the rearing of young cows. In addition there are difficulties of fodder collection and habitation. In 1961 a checking of the increase in the number of cows in favour of young cattle in a herd is apparent, nevertheless, the fundamental difficulties of increasing the number of cattle have not yet been overcome. Profitable changes have however been observed in the dynamic regional differentiation in the number of cattle.

An analysis of the developmental trends of cattle in the voivodships for the years 1956—61 shows that the greatest increase was in the Northern and Western territories. It was decided that the differences in the rate of increase of cattle is dependent upon the degree of saturation in individual regions measured according to the number of cattle per 100 hectares of agricultural land ($r = -0,634$), which in turn is a disproportionate expression between the stocks of cattle and fodder. In the case of the development of pigs, contrasting with cattle, limiting factory were proved due to local fodder difficulties. This is explained by the fact that, in individual voivodships, between the optimum number of pigs and the exsiting stocks of fodder there exists a more suitable relationship than that which exists between cattle herds and fodder stocks for cattle. Moreover, the economic policy has developed a levelling of fodder stocks provided individual voivodships in favour of pigs rather than cattle.

An interpretation of the development of pig supply after 1956 allows the thesis that, independent of the general increase trend, the develop-

ment of pig livestock was characterised by a cycle and pattern of fluctuation typical for pigs. This is probably related to the planned influence resulting in an offsetting of certain unfavourable elements. In Poland during the last years the chief characteristics have been a relatively low fluctuation in production and supply (differing by 10% from the trend), lower than in pre-war Poland, as well as in most capitalistic countries today; secondly, the fluctuation in the value of fattened stock, expressed as a price ratio of pigs: corn, is very slight, considerably weaker than the relatively low fluctuations in pigs production.

By a correlation of the rate of increase of pigs and cattle in individual voivodships over the period 1956—61 there appeared opposing patterns in the rate of increase in the two branches of production. In the Western lands there was a notable increase in the number of cattle with a simultaneous retardation in the development of pigs. However in the Central, Southern and Eastern voivodships the dynamic development of pigs was accompanied by a weak rate of increase in cattle. The common correlative factor in both of these examples ($r = -0,59$) proves the existence of a strong adverse correlative tie. The significance of this is two-fold. Firstly — it proves the existence of a certain trap in the rearing of farm animals in Polish agriculture. This means that there exist certain increase boundaries, within the frames of which are situated the increases of a particular type of livestock. The passing of a certain rate of increase by one type of animal a suitable lowering of the rate of increase of the remaining animals. The above regularity can be recognised as the rational foundation for the economic choice in shaping the scope of the proportional development between cattle and pigs through the economic policy. Secondly, — the contrast in the rate of increase of cattle and pigs in individual voivodships allows one to judge the beginning of a process in the specialized production of animals on a regional basis.

A certain lowering in the production of pigs in 1961/62 has caused a weakening in the developmental trend. It is conditioned by the cyclic pattern of pig production and the direct competition of cattle development. The pattern has been a weakening of the dynamics of the rate of increase of pigs from 1956—61 (the mid-year rate of 2,4% contrasts with 8% during the Six Year Plan). This demands special note. It is clearly not accidental and contains in itself a series of serious implications, such as the characteristic elasticity in total pig development, the degree of competition with cattle, as well as the rate of development related to changes in demand.

Within the sphere of the agricultural market, an estimation of the changing tendencies in the production of marketable foods for the years 1956—61 was achieved; taking into consideration the analysis of supply and the form of purchase, state purchases according to socio — economic sections, as well as an analysis of the altered prices of agricultural products. The progressive increase in the total mass of goods (assessed at the mid-year during the 5 year plan) was in the main part the result of a rapid rise in goods from animal production. This rapid rise was matched by the stagnation of goods from vegetable production. This is because a dominant part of the production of vegetable goods from

1956—61 was intended for use in further manufacture, while the increases in animal production were of marketable goods. In goods of animal production, the strongest rise occurred in milk supply and cattle livestock.

The strong increase of goods in 1961 (15,2% as compared to 1960) is characterized by a simultaneous rise in animal and vegetable products. A second specific feature is the strength of the increase in vegetable products (17,3%) also occurring after a rapid increase in 1960 (14,3%).

The growth in the supply of animal products in 1961 was in the main part an increase in pork livestock (17,7%), poultry livestock (11,5%) as well as eggs (12,4%). In the case of milk supply there was a slight decrease in comparison with previous years. There was a great drop in the supply of calf livestock (—11%), which is probably related to current trends in cattle development as well as transfer to the rearing of bullocks. An analytical comparison with tendencies under the Six Year Plan showed one of the fundamental differences in the developmental conditions in agriculture between the two periods. During the Six Year Plan the economic policy influenced agriculture towards increasing bulk vegetable production, mainly through the medium of compulsory grain quotas. Consequently there was an unsatisfactory growth in the supply of animal products. After the year 1956, when the extent of the compulsory grain quota was reduced, the growth of animal products was automatically accelerated. This is, to our mind, the most convincing and plastic proof of the reasonableness of changes accomplished by the agricultural policy.

A second similar proof is the further strengthening of the notable limitation of compulsory supply. In 1961 state purchases included over 83% of total agricultural goods as against 78% at the beginning of the Five Year Plan. Specific structural changes were noted however in the goods in the free market. This was characterized by the growing role of corn and a reduction in the turnovers of animal production. This vouches for the absolute shrinking of the role and range of the free market. The increase in the supply of corn in the free market is a symptom of the taking over by a disorganized market on the very important function of collecting and redistributing peasant corn within agriculture.

In this light the only indication illustrating the scope of the free market in the realization of agricultural products is through animal products. In this category, the share of State Purchases of cattle livestock rose from 82% in 1955 to 93% in 1961 and pork livestock similarly from 78% to 90%. However, the reverse tendency occurred in the case of milk and calf livestock. The share of the market in calf livestock products rose from 12% in 1955 to 34% in 1961, and in milk from 26% to 34%. This gives a warning signal, and demands a more detailed analysis.

The dynamics of the state purchasing of agriculture products was analysed on the basis of two economic sectors, each characteristically divergent, in peasant farms on the one hand and the state economy on the other, and for two fundamental products — corn and pigs. While the sale of corn to the state by peasant farms declined after 1956, so

there was a total growth in pig supply. A reverse tendency occurred in state farms for similar products.

The period of the new agricultural policy featured a further general growth in agricultural prices. Within this general growth of prices, vegetable products became relatively cheaper and animal products relatively dearer. Amongst animal products, the greatest relative price increase was in cattle livestock.

Concerning price changes in agricultural products definite alterations in fundamental relationships were shown.

Prices paid to farmers for compulsory quotas were raised to a considerably higher level in vegetable than in animal production. This trend by the new agricultural policy of this period had as its aim the rectification of harmful disproportions formed under the Six Year Plan, expressing itself in the lowering of the prices of vegetable products, especially corn. This in itself had unfavourable repercussions in the formation of a corn balance in agricultural economics, as well as in the formation of fundamental relations between the prices of agricultural products.

In the sphere of purchasing prices, excluding compulsory purchasing, the trend was reversed, that is the prices of vegetable products increased considerably more than animal products. The result was a considerable drop in the average prices of state purchases for pigs relative to corn, potatoes as well as cattle. Free market prices, under the influence of state, mainly compulsory, supply prices, also changed relatively.

In the years 1956—1960 the relationship between pig ÷ corn prices featured a growing tendency, where as the relationship of pigs to potatoes was lessening, although both of these relations have mainly a similar dynamic direction. This divergence is explained particularly by the dynamic prices of corn in the free market over this period. Differing from the prices of other agricultural products which featured growing dynamics, the prices of corn did change greatly after 1956. The lowering of corn prices in the free market from 1956—58, as well as the weak recovery in the following years, was mainly the result of the process of reduction in the compulsory supply of corn, and a lessening of the strain between supply and demand in the peasant market. The results of this were that the high price of corn typical of the Six Year Plan period had to be reduced and adapted to the new conditions, and secondly, a fundamental change in the string of both these commodities.

A radical change took place between the relations of pigs ÷ cattle and pigs ÷ milk, concluded in favour of cattle and milk.

After 1957 milk prices experienced a similar situation as corn prices. The standard price of state purchases was set with regard to the free market prices of the previous period, with the result that milk prices of the compulsory supply increased. The acceptance of this price for state purchases, after the annulment of the compulsory quota, resulted, in the years 1957—58, in particularly attractive conditions. The consequence was a rapid rise in milk supply, which the farmers achieved by reducing the renewal of herds. In addition, the high level of milk prices, after the removal of the compulsory quota, led to a certain levelling out the prices of the other agricultural products. The incre-

ase in pig prices, which soon followed (1958—1959) unfortunately complicated the development trends of total pig number, and the excessive deterioration in the value of pig livestock with regard to milk was connented.

Relative to the rapid upward trend of the prices of agricultural products in the last 5 years, 1961 is characterised by a general reduction in the rate of price increase, especially in animal products.