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# Current status and future problems of the poultry industry in Yugoslavia

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## I. – Introduction

*Over the last 25 years the development of the poultry industry in Yugoslavia has been more than encouraging. Although there have been some significant fluctuations, the trend of production and development has generally been positive. This period has been characterized by structural changes in total livestock production in favour of poultry meat and egg production.*

## II. – Evolution in poultry production after 1960

In 1961 Yugoslavia produced 590,000 tons of meat (excluding fish and game) compared with 1,370,000 tons in 1984, an increase of more than twice. During the same period poultry meat production increased by more than fourfold, amounting 311,000 tons. From 1961 to 1984, poultry meat production *per capita* rose from 3.6 to 13.5 kg at an annual growth rate of almost 6%. Similar growth rate have been recorded for egg production which in 1984 already amounted to over 4,600 million: an increase of more than 2.5 times at an annual growth rate of 4,5%. Only duck and goose production showed a decline, decreasing its share of total poultry fund in the country, while the output of turkeymeat showed a slight increase. The share of duck and goose production declined from 3.6 to 2% and from 5 to 2% respectively, while the turkey sector increased its share from 2.1 to 3% of the total.

This period was characterized by the beginning of intensive or industrial poultry production. Before 1960, extensive breeding and production as well as consumption of poultry products was influenced by significant seasonal fluctuations. It was only after 1960 that poultry production started to be based on modern technical and technological achievements organized on the division of labour, specialization and market-oriented production.

A significant contribution to this development, based on modern organization and effective disease control with efficient feeding, was provided by the state farms, poultry experts and scientists through their practical work.

In 1961 almost 90% of poultry meat production came from small private farms having a large variety of different strains of low productive flocks with poor disease control and no marketing. During the 1960's the situation rapidly changed because of the construction of modern state farms. In fact, these farms have made a significant influence on the dynamics and quality of production accounting for almost 43% of total poultry production in 1984 while their share in poultry reproduction was over 80%. It is worth emphasising that besides the organization of the production by the public sector, there was an optimal form of supply in the market not influenced by cyclical crises as occurs with other kinds of meat, particularly pork and beef. Egg production showed similar production and market characteristics but with a more significant time factor of market oscillations. Thanks to the rather dynamic growth rates and relatively stable prices of raw

materials and final products, especially before 1980, poultrymeat production was, and still is, the most reliable source of products of animal origin.

All Republics and Autonomous Regions (except Montenegro) in Yugoslavia experienced a very dynamic development of the poultry industry. Slovenia and Croatia showed the highest growth rates in poultrymeat production, while in the egg sector the highest rates were in Bosnia, Herzegovina and Macedonia. This uneven development is understandable to a certain degree if we take into consideration all the essential factors that decisively influenced it. The standard of living has declined, especially in the last five years, as a result of the economic difficulties in Yugoslavia which negatively influenced total meat consumption and, to a lower extent, poultrymeat consumption. From 1982 to 1986 *per capita* consumption of poultrymeat was around 14 kg, while consumption between 1961 and 1982 rose by an average rate of 0.7 kg per annum. In other words, during 1982 an average consumer in Yugoslavia consumed, in absolute numbers, 10 kg of poultrymeat more than in 1962.

The crisis in livestock production, especially in pig and cattle-raising (stagnation and decline in production, significant seasonal oscillations in supply and demand, big production losses, etc.) has not affected poultry production with the same intensity during the last twenty years. On the contrary, poultry production has increased, showing better economic efficiency in comparison with pig and cattle production. Leading poultry producers seldom recorded financial losses in this period, thanks in general to the following factors:

- production started to develop on the basis of modern technical and technological achievements which were successfully incorporated into Yugoslav poultry practice;
- major forces in poultry organizations were mostly highly educated people closely tied to scientific centres and institutes. In this way, science and practice in the poultry industry were tied together, with the science representing a regulator of the practice and the practice an impulse for next scientific ideas and solutions. Naturally, such a relation reduced the difference between theory and practice to a minimum;
- the various phases of poultry reproduction, i.e. breeding stock with high genetic potential and day old broilers, have been producing continuously on modern state farms under permanent disease control, contributing to synchronized production with minimal losses. Obviously, the optimal demand/supply ratio had to reflect positively both on the health status and income.
- In contrast with other branches of the economy, the poultry sector has not been so influenced by bureaucracy and dogmatism, at least not its production and organization.

### III. – Present situation

Nowadays almost 75% of poultrymeat production aimed for marketing comes from the state farms and co-operative contract producers. This production, based on co-operation with mutual interest, ensures continuity of production, economical use of capacities, reduction of production costs and permanent influence of poultry experts over all segments of production. This is the place where individual and public creativity and accumulation came together, having more than positive productional effects.

We are now expecting the Federal Executive Council to provide new measures in order to reduce the inflation which has been hampering our economic and social development for several years, decreasing the standard of living, invalidating achievements reached so far and discouraging people to work.

The permanent lack of capital, considerable foreign debts, insufficient exports and significant import restrictions will undoubtedly cause more serious conditions in our economy when compared with the past. We can, however, point out attained levels of poultry production and consumption, real possibilities for more efficient use of domestic raw materials, significant potential of poultry experts and scientists as

positive achievements that provide a solid basis for further development, with real chances in the field of international division of labour.

## IV. – Future poultry production and its problems

### 1. Necessity of stimulating the economic system

There are many open questions that make any forecasting uncertain, especially in the long term. Therefore, it will be better to point out some of the most pressing problems which could be obstacles in the future if we do not solve them promptly. Despite these problems, it is our aim to increase, at least to a minimum degree, production and consumption and to penetrate foreign markets to a higher extent, especially with our know-how. It is difficult to quantify future production and consumption for they are determined by the volume of income, price policy, supply of raw materials and breeding stock, international relations, etc... This means that the main factors of development are uncertain, i.e. unstable circumstances make it practically impossible to quantify future consumption. The prices and quality of our products will surely have much more impact on domestic demand compared with the past, especially in view of the traditional forms of trading and the narrow range of production. How then, under circumstances of obvious price disparity between raw materials and final products, various shortages in the market, different kinds of monopoly (never officially recognized), rudely deranged income distribution at the expense of organizations of associated labour and with no motivation for work, can we successfully continue to increase and improve poultry production? The way to overcome these problems undoubtedly is to change our economic and political system with an emphasis on the recognition of economic laws, affirmation of work and creativity. Unfortunately, our organizations of associated labour have a little influence on these problems. As there are certain presumptions that the situation will not be significantly changed in the near future, it is therefore more reasonable to point out some of the problems that could be more or less solved by organizations of associated labour and scientific institutions. It is known that our accumulations is fairly low, thereby our development possibilities are limited. The question is how to increase the accumulation and can we do it?

I believe it is possible under the condition that organizations of associated labour are more stimulated by the economic system in the sense of making higher incomes, primarily on the basis of more rational and more efficient utilization of available social resources. If the worker would be stimulated to the maximum for better work, the growth of national production and income would have an irrepressible upward trend. Such stimulation would encourage more rational utilization of existing economic capacities, and fundamental and qualitative changes would take place relating to the process of association throughout Yugoslavia, because there are certain reserves in that sense within our branch of production. In order to increase economically and technologically our justified process of integration, complete organization and development of poultry production including the place and role of domestic selection, number and size of grandparent centres of egg and meat strains, as well as the place and role of planning associations, should be subjected to an objective and qualified critique within our branch.

Without a good organization of work and use of modern technology, and without a rational exploitation of existing production capacities, it is impossible to achieve a higher degree of production efficiency and to improve the quality and range of products. Yet these are essential prerequisites for higher accumulation incomes for poultry production. Under unfavourable material conditions, in order to achieve better efficacy, it is necessary to use foreign accumulation, on the condition that it is used economically.

Let us hope that changes in the economic and foreign exchange systems will not allow further transfer or foreign accumulation and reprogramme our foreign debts to the consumption sector. On the contrary, we expect the accumulation to eliminate the causes which have led our country into this crisis. Consequently, our efforts have to be directed to the elimination of the limiting factors of development, in order to increase the material basis of associated labour and strengthen selfmanagement.

## 2. Possibilities to export

Regardless of the fact that there are many indications showing a decline of our competitiveness in international relations, the export potential of the Yugoslav poultry industry is really much higher than that realized so far. The highest level of exports was recorded in 1985, with nearly 30 000 tons of poultrymeat, and a significant quantity of eggs and egg products, feathers and day-old broiler chicks. During 1986, exports considerably declined, showing a significant increase in 1987 in comparison with the previous year. All this is insufficient and, in respect to our real possibilities, too modest.

However, there is neither a consistent strategy of exports nor the technological development necessary for stronger penetration of our goods in international markets, which makes exports more difficult. From the point of view of total livestock production, the poultry industry has the best chances because of its ability to benefit from the comparative advantages of Yugoslavia.

Almost all raw materials for the production of feeds are locally available in sufficient quantities except certain protein ingredients. Our great advantages are the highly skilled personnel and scientific potential along with the possibility of better organisation in offering complex programmes of poultry development. But these export chances are limited by unregulated relations within Yugoslav agriculture, i.e. by generally bad attitudes towards the agricultural sector. For example, poultrymeat feed costs account for 75% of the total yet domestic prices of the main ingredients (maize, soybean meal and other oilseed meal) are almost three times higher than those on the world market.

At first glance, labour costs seem to be our comparative advantage in international relations, with salaries that are well below levels in other, especially developed, countries. However, the existing process of extensive employment in Yugoslavia causes significant social outlays which additionally tax both income and salaries, making these labour costs per unit almost even to those in developed countries. Obviously, it is necessary that the normal production costs have to be cut of all unnecessary and unreasonable costs, for if more than 85% of costs per unit are beyond the control of the producers, it is impossible to be competitive in markets where production costs are formed in just the opposite way. Besides, various protection measures in EEC countries represent additional difficulties for the sale of our products in their markets.

Our import-export-firms have to make efforts to discover different forms of suiting our production to the needs of the world market, since the traditional forms of trade have not only limited impact on income but also reduce the volume of trading. It would be necessary to offer, with much more imagination and courage, complete poultry development programmes, including not only the goods but also know-how, technology, personnel training and consulting services. All these are real possibilities and, regarding income potential, are very attractive.

Compensational deals that could endeavour thus need to be incorporated into our foreign exchange system, but one must avoid supporting goods of other producers at the expense of poultrymeat and egg producers. Imports of raw materials for feed production could be compensated by poultry products thus contributing to the reduction of price disparity in exports.

## 3. Research involvement and technical progress

The use of science in poultry production, along with poultry specialists, have made significant contributions to its development, becoming an integral factor of production. Funds for scientific research and analysis of the Association of Yugoslav Poultry Producers, although insufficient, could be initially used for research of common interest and with prompt application in production. More attention has to be paid to research on energy conservation and fuel substitution as energy costs, which along with feed costs, represents a significant share of total production costs in the growing as well as the breeding cycle.

In recent years, significant development has been made in improving feed conversion (most poultry producers have feed conversion ratios of around 2:1). The growing period averages up to 42 days at which time birds weigh over 1.65 kg liveweight.

Nevertheless, it is necessary to make further improvements in feeding and in developing substitutes, because the economic efficiency of broiler growing and egg production depends on feed costs. For this purpose, it would be advisable to make better use of the services of the Poultry Centre in Zagreb because of its technical, technological and scientific possibilities for complex and detailed research in the field of nutrition.

Up to now little efforts have been made, especially on an organized basis, in the sector of added value poultrymeat processing. It is obvious that the traditional, poor variety of poultry products limits the volume of consumption in both domestic markets and in certain foreign markets. This would require joint financing of programmes that would technologically elaborate these problems and their application in an operational sense.

There are many divergent ideas in Yugoslavia about the place, role and economic justifiability of working on domestic selection. Within this spectrum of opinions there are also characteristics of personal motivations sometimes meaning that the arguments and production experiment are somewhat neglected. However, the development of domestic selection has to be under permanent care of the producers who must concentrate on its production and economic appropriateness. More professional debate about the justifiability of adding individual genetics to our poultry population is needed. The responsibility of making adequate decisions in this field is remarkable and demands much more production and technological information on the entire cycle of reproduction.

It would be useful to find suitable objects and finance, to support genetic research, more efficient feeding and various methods of disease control.

#### **4. Advertising activities**

Regarding the advertising activities at various regional exhibitions, the poultry industry is not present at all. It would be necessary to organize a discussion on that subject urgently, to determine regions of our export interest as well as methods and form of proper presentation of our export possibilities. Apart from the financial support of the Yugoslav Chamber of Economy, many of these activities could be jointly financed from associated funds, which would be less expensive and probably more efficient at the beginning.

In one word, we shall have to bring into our production processes more knowledge, group and individual stimulation as permanent forms of production improvement.

Co-operation between Yugoslav poultry organizations and other Mediterranean countries is inadequate despite traditionally good relations with all countries in the region. With many of these countries we could find mutual interest in entering the markets of Third Countries both in the field of their development as well as in the sale of our products.

Professional and scientific achievements need to benefit from more mutual exchanges, i.e. the flow of professional information needs to be more efficient because it is the imperative of our time.