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USSR Report

AGRICULTURE

(FOUO 4/82)

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CONTENTS

LIVESTOCK FEED PROCUREMENT

STRENGTHENING, MODERNIZING LIVESTOCK FEED PRODUCTION

Moscow KORMOPROIZVODSTVO in Russian No 1, Jan 82 pp 1-3

/Article: "Strengthening and Developing the Feed Base for Animal Husbandry"/

/Text/ One of the chief conditions for solving the tasks assigned by the 26th CPSU Congress for increasing the production of animal husbandry products is that of creating a stable feed base at each kolkhoz and sovkhoz, converting feed production over to an industrial basis and attaching a branch character to such production.

During the 1976-1980 period, the development of the country's feed base was carried out by means of improvements in the structure of forage crop plantings, by an increase in the productivity of these crops, by a more extensive introduction into production operations of progressive technologies and methods for procuring and storing feed and by increasing the production of mixed feeds and industrially produced feed additives. During the Tenth Five-Year Plan, the average annual expenditure of feed increased by 9.2 percent above the figure for the Ninth Five-Year Plan. However, on the whole the growth in feed production did not satisfy the increasing requirements of animal husbandry, either from the standpoint of quantity or quality. The rates of growth in the cropping power of the principal forage crops did not correspond to those assigned in the tasks and a substantial increase was not achieved in the productivity of the natural haying and pasture lands. In recent years the consumption of concentrates has increased at higher rates, but at the same time the proportion of coarse and succulent feed within the overall structure of expenditures has not increased to the degree required.

The decisions handed down during the July (1978) Plenum of the CC CPSU called for a considerable increase during the Eleventh Five-Year Plan in the production of coarse and succulent feeds and improvements in their quality. In carrying out this task, priority importance will be attached to making maximum use of all available potential and reserves. More intense work must be carried out in connection with intra-farm specialization in feed production, creating feed production subunits at the kolkhozes and sovkhozes, with land areas, equipment and personnel assigned to specialized feed production departments, sections and brigades and further improvements must be carried out in the control structure. The work of creating specialized farms and inter-farm associations for the production of marketable feeds must also be continued.

Some chief concerns in feed production which must be addressed in the next few years include -- achieving highly efficient use of each hectare of feed land,

raising the culture of branch management and sharply increasing the cropping power of forage crops on arable land and the productivity of the natural haying and pasture lands.

The principal trend with regard to increasing the production of feed on arable lands continues to be that of improving the structure of the areas assigned for forage crops. Special attention must be concentrated on expanding the plantings of perennial leguminous grasses -- alfalfa, clover and others and increasing their proportion in the structure of mown perennial grass areas. By 1985, with a negligible increase in the overall perennial grass area, the sowings of alfalfa must be expanded to 9 million hectares, clover and sainfoin -- to 10.5 million hectares. The work associated with reducing the sowing areas for annual cereal grasses should be continued. Taking into account the soil-climatic conditions of the olbasts, krays and republics, grass mixtures of pulse and annual cereal grasses should ideally be used mainly as intermediate and occupied fallow crops and also within the green conveyer system.

Under the conditions imposed by concentration and specialization of agricultural production, great importance is attached to introducing specialized feed crop rotation plans into operations, with consideration being given to the particular animal husbandry trend at a farm. With the mastering of these plans, feed production on arable land can become the foundation for feed production and its further intensification.

Silage crops, which annually occupy 18-19 million hectares, warrant special attention. An industrial technology must be introduced on a wide scale into kolkhoz and sovkhoz practice for growing corn for silage, with ears of milky-waxy ripeness and involving the use of highly effective herbicides and early ripening and mid-season ripening corn varieties and hybrids.

During the current five-year plan, a sharp increase must be realized in the effectiveness of use of reclaimed land in behalf of forage crops, so as to ensure that these lands serve as a guaranteed source for obtaining feed.

Improvements in the structure of the areas under crops, through an expansion of the plantings of perennial leguminous grasses (with irrigation to 76 percent and on drained lands to 68 percent), corn, food roots, the application of optimum fertilizer norms and observance of the irrigation regimes will make it possible to double, by 1985, the gross yield of feed obtained from reclaimed lands, compared to the average annual level achieved during the Tenth Five-Year Plan.

Expansion of the sowing areas using new and highly productive varieties of forage crops and grasses offers great opportunities for obtaining additional feed. Compared to 1980, the areas to be used for early ripening hybrids and varieties of corn during the current five-year plan must be increased by a factor of 2.5.

Technologies will be introduced into production operations on a more extensive scale which will make it possible to obtain 2-3 forage crop yields annually on irrigated lands and in the zone of adequate moisture. The plans call for the area of intermediate sowings of forage crops under irrigation to be increased by twofold prior to 1985. The sowings of early ripening mustard family crops (rape, oil-producing radishes, white mustard and others) must be expanded.

The creation of a strong feed base is unthinkable in the absence of an intensification of the pasture-meadow economy and the extensive use of natural feed lands for agricultural purposes. The kolkhozes and sovkhozes are carrying out a grandiose long-term program for mastering these lands and raising their productivity based upon the increasing potential of land reclamation, mechanization and the use of chemical processes.

During the Eleventh Five-Year Plan, the plans call for a large volume of work to be carried out aimed at radically improving the natural feed lands, creating irrigated haying and pasture lands, flooding pastures and developing catchwork irrigation. In addition to carrying out further work associated with improving haying and pasture lands, the attention of workers attached to kolkhozes, sovkhozes and agricultural organs must also be concentrated on their effective utilization. A radical change must take place in the attitude towards the use of improved natural feed lands, the area of which will increase to in excess of 31 million hectares by 1985. The timely carrying out of a complex of measures for the tending and rational use of these lands will make it possible to increase the fodder yield by a factor of 2-3.

A great amount of work must be carried out during the current five-year plan aimed at introducing a technology for the multiple-cutting use of grass stands. This technology will be based upon applications of complete fertilizer norms and harvesting of the grasses during the early phases of development. The use of this technology in regions of adequate moisture will make it possible to carry out 3-4 cuttings of the grasses and, in the process, to raise the quality of the feed considerably.

Forage crop areas located on flood plain lands require strict attention. Even with low expenditures for developing them in many regions of the country, they can become a reliable source for obtaining coarse and succulent feeds.

In addition to the further watering of pastures in the arid zone, more intense work must be carried out in connection with improving their ability to produce feed. In addition to taking advantage of existing scientific and practical experience, it will also be necessary to expand the work volumes associated with introducing pasture rotations with two seasons of use and alternation of the spring and summer pastures. This will make it possible to raise their productivity by 20 percent, increase the areas to be used for planting pasture-protective saxaul strips and for the additional sowing of grasses and to intensify the campaign being waged against the degradation of pastures.

One of the chief problems in feed production continues to be that of improving the quality of the feed and reducing losses during their procurement and storage. Considerable feed losses and a reduction in their quality are being tolerated as a result of the untimely harvesting of the forage crops. A month or longer is being spent in harvesting the sown and natural grasses at kolkhozes and sovkhozes and only 30-40 percent of their areas are being cut down during the optimum periods. And indeed just one day's delay results in a 2 percent loss in feed units. When corn is cut down during earlier phases (prior to commencement of milky-waxy ripeness of the grain), each hectare produces 25 fewer quintals of feed units. The yield of dry substance is especially low in the case of late ripening varieties and hybrids.

The untimely harvesting of forage crops is the result mainly of failure to observe technological discipline, the absence of operational control over the course of feed procurement operations, weak organization of labor and unsatisfactory preparation and use of the feed harvesting equipment. The kolkhozes and sovkhozes are confronted by the task of achieving complete and efficient use of the entire pool of machines and raising their productivity prior to the end of the five-year plan. Taking into account the deliveries of highly productive equipment, this will make it possible to reduce the schedules for harvesting grasses for hay to 12 working days, for haylage -- to 8 and for silage -- to 9 days, or more than twofold.

An important reserve for increasing production and raising the quality of feed is that of introducing progressive technologies for the procurement and storage of feed. During the Eleventh Five-Year Plan, the overall volume of hay procurements, pressed and prepared using the method of forced ventilation, will increase to 55 percent instead of 25 percent as was the case in 1980. A technology for the chemical preservation of green plants holds great prospects for the future. This technology is presently being employed for preparing 7-8 million tons of silage. In 1985, assuming deliveries by the chemical industry to agriculture of chemical preservatives in the planned volumes, it will be possible to preserve 60 million tons of fodder.

The kolkhozes and sovkhozes are sustaining considerable losses in feed nutrients owing to a lack of feed storehouses. In 1980, 40 percent of the silage, 80 percent of the haylage, 10 percent of the root crops and 8 percent of the hay were placed in storage in capital facilities. Despite a great volume of feed storehouse construction to be carried out during the Eleventh Five-Year Plan, the requirements of the farms for such facilities will still not be met. Thus the construction volumes for the 1981-1985 period must be viewed as minimal and use must be made of all available potential and reserves for completing the construction of feed storehouses at each kolkhoz and sovkhoz.

A great amount of attention must be given to organizing the rational and efficient use of forage grain in animal husbandry. In 1980, only 44.1 percent of the forage grain was processed into mixed feed. The remaining portion was used in an inefficient manner -- in simple feed mixtures or in crushed form.

Special importance is being attached at the present time to organizing the production of animal husbandry products with minimal expenditures of concentrates. Every attempt must be made to ensure that all grain allocated for feed purposes is used in the form of mixed feed or full-value feed mixtures. In addition, maximum effort must be directed towards reducing the proportion of grain in the mixed feeds by increasing the proportions in them of high quality grass meal and valuable waste products from the food industry and agriculture. Experience has shown that the proportion of non-grain components in mixed feeds can be raised to 40-50 percent, with no harm being caused to the productivity of the animals. In the process, rather than simply mixing various types of components, they should be selected in a manner so as to ensure the production of rich mixed feeds which will be balanced in terms of the required nutrients.

The non-grain feed resources which our country has at its disposal, assuming their complete use, could also make it possible to reduce the proportion of grain in mixed feeds. For example, when organizing the drying of beet pulp residue, malt residue, brewing waste and potato pulp, it is possible to obtain on an annual basis

no less than 6 million tons of valuable raw materials used in the production of mixed feeds. However, drying is being carried out presently only in the case of beet pulp residue, and only on a limited scale.

Each year the animals are being fed large quantities of skim milk, whey and buttermilk. When these products become readily available during the summer months, when no protein deficit is being experienced, they are expended in an irrational manner. The organization of the drying of these products will make it possible to obtain 1-1.5 million additional tons of rich raw materials.

An increase is required in the production of feed additives of animal origin. At the present time, slightly more than 50 kilograms of meat-and-bone meal are being produced per ton of meat, although this indicator could be considerably higher. Measures should be undertaken aimed at processing into feed meal all waste products obtained from the meat industry and making complete utilization of all slaughtered animals.

In order to achieve rhythmic operations by the inter-farm, kolkhoz and sovkhoz mixed feed enterprises and departments and unconditional fulfillment of the production plans for mixed feeds and feed mixtures, the USSR Ministry of Procurements must undertake additional measures to ensure that the tasks for supplying agriculture with protein-vitamin additives are fully carried out. Special importance is attached to ensuring that USSR Gosplan, USSR Minkhimprom /Ministry of the Chemical Industry/, USSR Minudobreniy /Ministry of Mineral Fertilizer Production/, USSR Minmedprom /Ministry of the Medical Industry/ and Glavmikrobioprom achieve fulfillment of all plans and are able to supply agriculture with additional quantities of mineral additives, microelements, vitamins and other biologically active substances.

It is presently impossible to solve the growing tasks in feed production in the absence of active scientific participation and influence.

The task of scientists consists of intensifying studies of a research nature, expanding scientific work of an applied character and sharply increasing the volumes of completed scientific studies being introduced into operations. All possible measures must be undertaken aimed at raising the operational effectiveness of scientific institutes in the area of feed production and strengthening their contacts with kolkhozes and sovkhozes.

The placing in operation of all available reserves for feed production, the use of modern methods and technologies for preparing feed and the rational use of feed are making it possible to raise the productivity of animal husbandry and to ensure the successful fulfillment of the animal husbandry production volumes planned for the Eleventh Five-Year Plan.

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CSO: 1824/174

LIVESTOCK

ACCELERATION OF RATES OF EGG PRODUCTION CALLED FOR

Moscow PTITSEVODSTVO in Russian No 12, Dec 81 pp 2-5

[Article by V. Annenkov, first deputy chief of USSR Ptitseprom: "Accelerating the Rates of Intensification of Egg Production"]

[Text] While implementing the party's agrarian policy, our country's poultry workers have done an immense amount of work in the past three decades for concentration and intensification of production in the branch.

Before the changeover of public poultry raising to an industrial basis it was mainly small kolkhoz and sovkhoz farms that engaged in egg production, and extensive methods were used in the branch. The average production of eggs per hen on farms of the public sector amounted to only 117 per laying hen, 80 percent of the eggs were obtained during the spring and summer period, and they were produced at a loss on the majority of the farms. In 1964 the gross yield of eggs amounted to 26.7 billion, including only 7 billion or 26 percent from the public sector. The per capita egg production was 126.

The radical restructuring of the branch began in keeping with the decisions of the March (1965) Plenum of the CPSU Central Committee and the decree of the CPSU Central Committee and the USSR Council of Ministers, "On Organizing the Production of Eggs and Poultry Meat on an Industrial Basis," of 3 September 1964. During the time that has passed since then a specialized system of poultry raising farms has been created (USSR Ptitseprom). Reconstruction of existing enterprises, and the construction of large new poultry farms, breeding plants and other reproduction facilities were carried out systematically and consistently. During 1965-1980 13.5 billion rubles' worth of capital investments were made in the development of a production base for the branch, amounting to a total of 15.6 billion rubles. A total of 437 poultry farms for egg production were constructed or expanded, as were 75 breeding farms. Almost all of the specialized enterprises underwent technical rearmament. New capacities to accomodate 110 million laying hens were put into operation. Large poultry farms for 300,000-600,000 and 1.0-1.5 million head of industrial stock were created.

The rapid technical progress in the branch, the consolidation of enterprises and the improvement of the volume and planning decisions led to a change in the standard designs of poultry farms. Reinforced concrete structures with plant readiness, asbestos cement, and panels faced with sheets of aluminum began to be used more

extensively. All this made it possible to use industrial methods to construct specialized enterprises and to sharply reduce the time periods for putting them into operation.

The development and mass production of highly productive equipment and machines for various purposes contributed to the technical rearmament of poultry raising, and this considerably raised the level of mechanization and automation of all technological processes without exception.

During the years of the Tenth Five-Year Plan they began series production of such highly efficient modern coop equipment as the KBR-2 two-layer battery for group maintenance of hens that breed other hens for egg laying, and a three-layer battery of the cascade type for raising poultry to replenish the flock and maintaining laying hens of the industrial flock (BKM-3 and BKN-3). Their utilization makes it possible not only to considerably increase the density of the poultry per one square meter of floor of the chicken coop, to reduce labor expenditures and to increase labor productivity by 14-47 percent, but also to provide for operating the equipment automatically and to create optimal conditions for keeping the poultry.

As of 1 January 1981 on egg farms of the USSR Ptitseprom more than 98 percent of the laying hens of the industrial flock, almost 99 percent of the young poultry for replenishing the flock and about 70 percent of the reproduction flock were kept in mechanized batteries. IKP-90 incubators are being produced for raising large batches of young poultry. The poultry farms are now receiving BSK-25 exterior bunkers for storing mixed feeds and ASP-25 special feed carriers.

In order to change poultry raising over to an industrial basis, it was necessary to develop a principally new technology and effective methods of feeding and maintaining poultry, as well as to improve the forms of organization of the branch and administration of the poultry raising business. On the basis of a study of the practice of poultry raising throughout the world and generalization of the advanced practice of the best farms of our country, Soviet scientists, in a relatively short period of time, developed and introduced into production a comprehensive system for running the branch on an industrial basis. This system includes methods of selection, norm setting for feeding poultry, programs for controlling productivity (parameters of the microclimate, lighting conditions, purposive raising of young for replacement, artificial molting of laying hens, and so forth), technology for maintaining poultry in batteries of cages, effective measures of fighting against the most dangerous infectious diseases of poultry, and many other things.

Improvement of breeding work and the creation of domestic lines and crosses of highly productive poultry for eggs played a special role.

At the time of the creation of the USSR Ptitseprom system in our country there were no sufficiently highly productive lines and crosses for obtaining hybrids. In order to accelerate the creation of a breeding base, the All-Union Trust of Breeding Poultry Farms was organized. It included 20 of the best breeding farms.

In order to replace the less productive poultry, more than 200,000 head of young foreign crossbreeds were imported. This poultry was propagated and improved in scientific institutions and at breeding plants.

As poultry raising became more intensive, selection workers were faced with more and more complicated tasks. Scientists and specialists of scientific institutions and leading breeding plants, on the basis of domestic and imported genetic material, created and introduced into production a whole series of highly productive egg laying crossbreeds. The most widespread on the specialized farms were the following crossbreeds: Yantar'-1 (38 percent of the poultry that was utilized), Belarus'-9 (31 percent), Zarya-17 (12.7 percent), and Volzhskiy-3 (10 percent).

Many farms that used the Zarya-17 cross achieved high indicators of the productivity of the hens in 1980. Thus the Giryale poultry sovkhoz in the Lithuanian SSR gathered an annual average of 271 eggs per laying hen, the Veviskaya poultry farm in the Lithuanian SSR and the Zabrodenskoye association in Voronezhskaya Oblast--267, and the Gur'yevskaya poultry farm in Kaliningradskaya Oblast--264 eggs.

At the present time there is fully developed system of breeding farms in operation in egg production, which makes it possible to utilize only hybrid laying hens at all commercial enterprises without exception, which allows us to hope for a significant increase in the productivity of the hens in the near future. This pertains also to kolkhoz and sovkhoz farms and farmstead plots belonging to the population.

At the same time, under the Eleventh Five-Year Plan selection workers will be faced with the task of creating producing crosses of poultry which produce 255-260 eggs per laying hen with feed expenditures of no more than 1.4-1.5 kilograms per ten eggs.

A large amount of work has been done to deepen the specializations of the farms, concentrate production and improve administration of the branch on the basis of agro-industrial integration and the creation of various interfarm associations and complexes. As a result, the average size of the farms in the USSR Ptitseprom system has increased from 44,000 head of mature poultry in 1965 to 150,000 head in 1980, that is, more than 3-fold. While in 1975 there were 60 production associations in the USSR Ptitseprom system, as of 1 January 1981 there were more than 100. These associations now include 400 farms or 28 percent of the overall number of farms in the USSR Ptitseprom system. The work experience of the Minsk, Kiev, Tomilino, Kustanay, Vitebsk, Glebov and many other associations clearly shows this form of organization of the branch contributes to improving technology and introducing comprehensive mechanization and automation; it also provides for more efficient utilization of fixed capital and a reduction of the expenditure of labor and money per unit of output with a sharp increase in its gross volume.

During the years of the Tenth Five-Year Plan the farms of the USSR Ptitseprom provided for a significant further increase in the gross yield and procurements of eggs, and compensated for the shortage of them in other categories of farms, thus contributing to successful fulfillment of the five-year plan which envisioned increasing the average annual egg production on all categories of farms to 58-61 billion. It actually amounted to 63 billion eggs.

The overwhelming majority of poultry farms and kolkhoz and sovkhoz farms have successfully fulfilled the assignments for the past five years. There was also a considerable improvement in the quality of egg products, and expenditures of labor and

feeds per unit of output decreased. Labor productivity, profitability and production efficiency also increased.

One cannot but take note of the large amount of work that has been done for a significant expansion of the processing base on farms of the USSR Ptitseprom. During the past five years the capacities of slaughter shops increased from 1,800 to 3,400 tons of slaughtered poultry per shift. Enterprises of the Russian Federation and the Belorussian SSR have organized the production of powdered eggs, whose output amounted to 3,700 tons in 1980. All this made it possible to considerably improve the quality of the products and reduce losses of them.

I should like especially to discuss an important economic indicator of the development of the branch and the efficiency of the operation of its enterprises as labor productivity. During the past fifteen years it has increased 4-fold on the farms of the USSR Ptitiseprom system, including by 41.8 percent during the years of the Tenth Five-Year Plan. The highest rates of increase in labor productivity were achieved on specialized farms of Belorussia, Lithuania and the Russian Federation. Under the Tenth Five-Year Plan, 80 percent of the increase in gross output was achieved as a result of increased labor productivity. It is typical that the rates of increase in labor productivity exceeded the increase in earnings 2.5-fold. This is a most important indicator of production efficiency.

While in 1975 4.2 man-hours were expended for 1,000 eggs, in 1980 this figure was 3.0 man-hours. During the Tenth Five-Year Plan the number of head of poultry attended by one worker on the farms of the USSR Ptitseprom system increased 1.5-fold.

The 26th CPSU Congress earmarked increasing the average annual volume of egg production on all categories of farms to no less than 72 billion during the current five-year period. In order to achieve this it will be necessary for all categories of farms to obtain no less than 75 billion eggs in 1985, including 52-53 billion eggs in the public sector.

In order to carry out this task it will be necessary to evaluate critically all the work that has been done and to concentrate attention on unsolved problems. When analyzing the indicators of the operation of specialized farms, one cannot fail to note the significant differences in them. In each oblast and republic there are farms that achieve a sharp increase in egg production from year to year and increase zootechnical and economic indicators, and there are enterprises operating under the same conditions with a considerably lower level of operation.

One of the main reasons why the farms of a number of oblasts and republics fail to fulfill the plans for egg production is inadequate attention to such a reserve as increasing the egg bearing of the hens. Frequently the explanation for their low productivity is the poor quality of mixed feeds that are sent to the farms. But still many enterprises with the same conditions achieve quite a different result. Increased productivity of the hens is the result of a persistent, purposeful struggle for the further intensification of the branch. A good deal is being done in this area in a whole number of union republics. For example, in 1980 the specialized farms of the Lithuanian SSR obtained an average of 249 eggs per laying hen, which is an annual increase in productivity of six eggs; and enterprises of the Estonian SSR and the Belorussian SSR gathered 246 eggs per hen, with the increase

in productivity per head being four eggs and one egg, respectively, as compared to 1979.

And yet on the farms of the Ptitiseprom of the Tajik SSR the productivity of the hens decreased by 13 eggs, the Kirghiz SSR--by 8 eggs, the Latvian SSR--by 10 eggs, the Azerbaijan SSR--by 5 eggs, and the Ukrainian SSR and the Kazakh SSR--by 2 eggs.

The immediate task of managers and specialists of the branch consists in extensively developing the struggle for increasing the productivity of the hens. As a result of this alone, with the same capacities, it is possible to significantly increase the production and procurement of eggs.

This task is closely related to another, no less important one--economical expenditure of feeds. For the greater the productivity of the poultry, the less feed is expended per unit of output. On the Vevisskaya poultry farm in the Lithuanian SSR, which obtained 267 eggs per laying hen in 1980, feed expenditures per 10 eggs amounted to 1.5 kilograms, at the Borovskaya poultry in Tyumenskaya Oblast--258 eggs and 1.5 kilograms, respectively, and the Minsk production association--256 eggs and 1.7 kilograms, respectively.

In the Tomilino production association in Moscow Oblast the egg production of the laying hens increased from 221 to 241 eggs during the past five years. And this is with a large number of head of poultry. In 1980 the Tomilino association produced 450 million eggs, and feed expenditures per 10 eggs decreased from 1.88 kilograms in 1975 to 1.77 kilograms in 1980. In the Glebov production association in Moscow Oblast the productivity of the hens increased by 8 eggs during this same period and reached 240 eggs per laying hen. Feed expenditures decreased appreciably here too. All of these farms and associations strictly observe technology and strive to enrich the feed mixtures.

One must not forget for a minute about efficient expenditure of feed resources. It is known that the cost of mixed feeds comprises 65-70 percent of all the expenditures on egg production. Therefore the primary duty of workers of the branch consists in struggling for economy of feeds each day and closing off all channels through which they are lost. An inspection of the work of a number of farms showed that from 2.5 to 5 percent of the feeds are lost when they are shipped in railroad cars or open trucks, and 1-2 percent are lost while processing is being completed on the farms. Rodents eat 1.5-2 percent of them. And losses from all these factors reach 5-10 percent. But the greatest losses come from filling the feeders too full--the scattering of the feeds accounts for from 10-15 percent of the losses. And every gram that is lost means products that are not produced and labor that is expended in vain. A thrifty attitude toward feed should become an indispensable law at each enterprise and farm.

An important reserve in egg production is to reduce the percentage of rejection of laying hens during the productive period. Many farms reject up to 40 percent of the poultry during this time. As a result, during the course of the year production capacities are actually not utilized for about two months.

The extensive production experiments conducted at the Borovskaya poultry farm showed the possibility of keeping laying hens from the time they are 150 days old

until the end of the productive period without rejecting them, with the exception of removing dead poultry and those with symptoms of diseases. The results of the experiments were utilized in the practical work of the enterprise. This made it possible to reduce the culling of laying hens from 33 percent of the initial number in 1975 to 18 percent in subsequent years, that is, to keep an additional 120,000 hens, which produced 30 million more eggs.

Further increase in labor productivity also requires unwavering attention. The differences in this most important indicator among individual union republics are still extremely great. While on farms of the Estonian SSR 1.8 man-hours are expended per 1,000 eggs, in the Turkmen SSR they expend 7.5 man-hours or four times more. At specialized enterprises of the Georgian SSR this indicator is 6.7 and in the Azerbaijan SSR--8.9 man-hours, that is, almost three times more than the average for the USSR Ptitseprom.

Labor productivity is a comprehensive indicator which reflects the farms level of operation and determines its efficiency. Only constant and persistent study and introduction of advanced practice and improvement of the organization of labor as well as all other aspects of production activity will make it possible to achieve an improvement in this indicator, and, consequently, successful fulfillment of the tasks facing the farm.

Despite the significant increase in the production and procurement of eggs in past years, the demand for this valuable food product is still far from being fully satisfied. The per-capita egg production in the republics of Central Asia, Transcaucasia and a number of regions of Eastern Siberia and the Far East still fall significantly below the scientifically substantiated norms. Therefore it is necessary to ship a large quantity of eggs there.

In these regions it is necessary to considerably increase production capacities by reconstructing existing farms and constructing large new poultry farms and mechanized commercial farms.

But in many oblasts, krays and republics the per-capita egg production has reached 300 and more, that is, it has approached the scientifically substantiated norms for consumption. In these regions the problem of providing eggs for the population has practically been solved. Consequently we should discuss utilizing production capacities more fully and increasing all qualitative indicators of production as well as its efficiency.

One cannot but take into account the role of farmstead plots either. They are an important source for augmenting food resources. Their annual egg production amounts to 20-22 billion eggs. Therefore it is necessary to fully satisfy the needs of the owners of these farms for highly productive young poultry. In 1980 570 million head of young poultry were sold to the population--almost 200 million more than in 1975. But this must be regarded as only the beginning of effective measures for rendering assistance in the development of farmstead poultry raising.

The first year of the Eleventh Five-Year Plan is drawing to a close. Labor collectives of poultry enterprises and farms, implementing the decisions of the 26th

Party Congress, are striving to fulfill and overfulfill annual plans and socialist commitments for the production and sale to the state of products of the branch, and to lay a firm basis for early completion of the assignments of the five-year plan. The utilization of the extremely rich reserve of industrial poultry raising will make it possible to make a worthy contribution to the improvement of the supply of highly valuable food products for the population of our country.

11772
CSO: 1824/154

AGRO-ECONOMICS AND ORGANIZATION

DEVELOPMENT OF FOOD PROGRAM WITHIN APK SYSTEM DISCUSSED

Moscow VOPROSY EKONOMIKI in Russian No 12, Dec 81 pp 103-113

/Article by Yuriy Ivanovich Bystrakov, doctor of economic sciences, deputy chairman of the Commission on Scientific Principles of Agriculture under the Presidium of the USSR Academy of Sciences, and Mikhail Anisimovich Polyakov, candidate of economic sciences, senior scientific worker at the Institute of Economics of the USSR Academy of Sciences: "Agroindustrial Complex and Development of the Food Program"/

/Excerpt/ The party and the government pay constant attention to the development of integration relations of agriculture with industry and service spheres. At the November (1979) Plenum of the CPSU Central Committee L. I. Brezhnev stressed the following: "In the final analysis the consumer judges both the quality and quantity of agricultural output by what he sees and can buy in a store. That is why it is necessary to strive for a smooth and coordinated operation of all the links of the chain that connects the field or the farm with the consumer. Everything is equally important here--the transport and production of containers, storage and processing of products and, finally, trade." The link that connects the field and the farm with the consumer is a figurative expression of the agroindustrial complex (APK).

The agroindustrial complex of the USSR as a structural unit of the system of the national economy is the totality of technologically and economically interconnected sectors subordinate to a common ultimate end--full satisfaction of the needs of socialist society for food products and other consumer goods produced from agricultural raw materials. The agroindustrial complex received an official status in the national economic plan. The following is stated in "Basic Directions in the Economic and Social Development of the USSR for 1981-1985 and for the Period Until 1990": "The country's reliable provision with foodstuffs and agricultural raw materials is the basic task of the agroindustrial complex."

The agroindustrial complex occupies a position exceptional in its scale in the system of the national economy. For example, more than 600 million hectares of agricultural land, including more than 220 million hectares of arable land, are used in agroindustrial production and over 40 million average annual workers are employed in it. During the 11th Five-Year Plan more than one-third of all the capital investments are allocated for the development of the agroindustrial complex (including nonproduction construction). The proportion of the agroindustrial complex in the formation of the final product comprises more than 50 percent. The share of foodstuffs in retail trade turnover comprises approximately 55 percent and of all the goods with the use of agricultural raw materials (foodstuffs, fabrics, clothing, knitted articles, footwear and so forth), about 80 percent.

The structure of the agroindustrial complex is determined by technological and economic relations and connections among sectors directly participating not only in the production process, but in the delivery of the final product to the consumer as well. The correlation of sectors performing production functions at every stage of integrated agroindustrial production forms the sectorial structure of the agroindustrial complex.

Agriculture and food and light industry sectors are the basic complex forming sectors of the agroindustrial complex. The proportion of all these sectors in the production of the final product comprises about 65 percent.

The following belong to the sectors of the agroindustrial complex: tractor and agricultural machine building; machine building for light and food industry; machine building for animal husbandry and fodder production; production of mineral fertilizers and plant protection agents; mixed feed and hulling and milling industry; microbiological industry; repair of tractors and agricultural machines; material and technical supply (in the part made up for by the enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture); land reclamation; rural construction; road construction (in the part of intrafarm work); housing and cultural-general construction; personnel training; farming sectors; animal husbandry sectors; food industry (including meat and dairy industries); light industry; procurements; trade and consumer cooperatives; specialized transport.

In the physical and material component food products and agricultural raw materials for their production, which in their totality form the food subcomplex, constitute the predominant part (about three-fourths) of the final product of the agroindustrial complex.

The level of development of the food subcomplex in our country makes it possible to ensure the population's nutrition in terms of the total caloric value at the level of scientifically substantiated norms. From 1965 through 1979 the per-capita consumption of basic food products increased at the following rates: of meat, by 41 percent, of milk, by 27 percent, of eggs, by 88 percent, of fruits and berries, by 36 percent and of vegetables, by 32 percent. During the same period the total caloric value of food products increased by 10 percent, amounting to approximately 3,000 kcal, which corresponds to the average physiological norm determined by the FAO (Food and Agriculture Commission of the United Nations).

Balanced nutrition in terms of the total caloric value should not be a calming factor, because the needs for proteins and fats of animal origin are compensated at the expense of carbohydrates. At present the consumption of milk, dairy products, eggs, meat, vegetables and fruits lags behind rational norms.

The partially unsolved problem of the population's provision with food products generated the need for the development of a special food program. Speaking at the October (1980) Plenum of the CPSU Central Committee, L. I. Brezhnev said the following: "Among the problems on which the living standard of the Soviet people depends improvement in food supply occupies the first place... The Politburo of the CPSU Central Committee adopted a decision on the preparation of the food program. It is a question of a program designed to link together problems connected with the development of agriculture, of the industrial sectors servicing it and of the procurement, storage, transportation and processing of agricultural products and

problems connected with the development of the food industry and of trade in foodstuffs... This agroindustrial food complex should be planned, financed and managed as a single whole, ensuring high end results. The food program should be prepared so that it becomes an organic component of the 11th Five-Year Plan."

Beginning in 1980 economic planning organizations, scientific research institutes, ministries and departments have been developing proposals for the food program. The USSR Gosplan has guided this work.

The difficulties in its development are connected with the intricate social and economic structure of the food subcomplex, as well as of the entire agroindustrial complex, whose development is determined by the natural and climatic factors of the country and regions. Products are produced at state and kolkhoz-cooperative enterprises and on private subsidiary farms. The system of management and planning has a significant effect on the stability and efficiency of production.

Therefore, in the process of development of the food program special attention is drawn to the elimination of bottlenecks, that is, an inefficient structure of fixed productive capital and an outstripping growth of the capital of agricultural production as compared with the capital of sectors of sphere III of the agroindustrial complex. The reasons for the noted shortcomings are the low level of utilization of the existing natural and growing technical and economic potential of agriculture and of the capital producing and processing sectors of industry connected with it; imperfect structure of agroindustrial production; weak effect of the existing system of the economic mechanism on production efficiency. The insufficiently high rates of development of the agrarian sector of the economy are due not to the deficiency of the production potential, but to its ineffective utilization owing to the separation of sectorial interests intensified by the practice of sectorial planning and management. At the November (1981) Plenum of the CPSU Central Committee L. I. Brezhnev stressed that "during the preparation of the program it is necessary to carefully work out the structure of the agroindustrial complex and to eliminate the discrepancies existing in it. In the presented plan slightly more resources are assigned for the development of sectors supplying agriculture with means of production, as well as carrying out a more thorough processing and ensuring the preservation of agricultural products."

The following are the basic conditions for a successful functioning of the multisectorial agroindustrial complex: First, a balance of production stages in the volumes of output and resources; second, a specific orientation of sectors functioning at various stages of reproduction toward a common ultimate end through the subordination of the activity of each of them to the task of the fullest possible satisfaction of the needs of sectors engaged at the subsequent stage of reproduction for production resources.

An increase in the stability of production of agricultural raw materials and foodstuffs is one of the important principles of the agrarian policy of the party established by the March (1965) Plenum of the CPSU Central Committee and further developed at the 24th, 25th and 26th congresses and plenums of the Central Committee of the party and in the decisions and decrees of the party and the government on problems concerning the development of agriculture and of servicing and processing sectors of the agroindustrial complex. Therefore, the concept of a steady and

stable development of agroindustrial production becomes basic in the establishment of the country's food program for the forthcoming five-year plan and for the period until 1990. The objectives and tasks of the very near future and of a long-term period and large-scale measures and steps aimed at the solution of the food program are developed from this point of view.

The fulfillment of the indicated conditions of development of the agroindustrial complex of the USSR in the specific proposals for an improvement in the structure and mechanism of its functioning is connected with the effectiveness of the basic principles of socialist management, in particular democratic centralism and so on.

In the system of measures directed toward the attainment of stable rates of development of agroindustrial production rationalization of the structure of the agroindustrial food complex and improvement in the economic mechanism of management are put in the forefront. At the same time, the economic mechanism itself is a means of rationalization of the structure of the agroindustrial complex--provision of optimization of the functional structure of the agroindustrial complex and its embodiment in the sectorial structure.

The object food program is aimed at ensuring the basic conditions of functioning of the agroindustrial complex--a balance of the production stages of this complex in the volumes of production and resources and orientation of the sectors of the agroindustrial complex toward a common ultimate end. In other words, the program envisages not only rationalization of the structure of the agroindustrial complex, but also the elimination of the existing separation of its sectors by the motivational mechanism of stimulation of economic activity for the attainment of high end results. This will create favorable opportunities for the fullest utilization of production, biological and material resources at all the stages of agroindustrial production.

The many-sided nature of solution of problems connected with the development of the agroindustrial complex requires a single management of both the elaboration and the realization of the food program. This should be based on a systematic transition from the existing territorial-sectorial management to a primarily overall territorial-intersectorial management of the agroindustrial complex with a separation of regional and specialized subcomplexes. The system of management of the agroindustrial complex should organically combine the overall (system-program) planning of all the stages of agroindustrial production, the economic mechanism and the organization of management ensuring a rational combination of centralism and democratic principles in the area of decision making and realization. Directing agroindustrial production toward the maximum output of the final product (food) rational in its structure per unit of integral production resources, not toward sectorial (intermediate) results, is the most important condition for its effective functioning.

The creation of conditions for the transition from sectorial to intersectorial program-object planning and management should become the most important task in the area of improvement in production planning. In this connection the development and utilization of progressive norms as the principles of planning in the system of the agroindustrial complex, as well as control over the observance of planning discipline, takes on special importance. At the same time, it is necessary to strictly observe the provision of planned assignments with resources in accordance with standard requirements.

Only the types of products needed for the formation of all-Union food stocks, as well as export and reserve resources, should be envisaged in the state plan for purchases of agricultural products, which fully regulates the production structure.

The realization of the principles of program-object planning and management of the agroindustrial complex is connected with the elimination of bottlenecks hampering the development of production and causing losses and with the liquidation of intermediary links in the sectorial and functional structure of agroindustrial production. The rationalization of placement and specialization of the sectors of the agroindustrial complex serve this task. During the forthcoming years it is especially important to begin the implementation of measures for the fullest utilization of the country's natural and climatic potential with due regard for the realization of large-scale plans in the future. They include primarily the formation of specialized production zones and an interregional exchange of the output of the agroindustrial complex.

The stability of production in the system of the agroindustrial complex should also be understood as the attainment of a regional structure of the agroindustrial food complex that ensures the maximum utilization of all the resources available in its sectors.

The development and mastering of advanced systems of agricultural management, accelerated realization of the achievements of scientific and technical progress in the sectors of the agroindustrial complex (selection and seed growing, breeding of highly productive livestock and poultry, increase in the reliability and productivity of machinery and equipment, development of land reclamation and so on) and the solution of social tasks of rural development take on especially great importance.

Measures for changing the regional structure of agroindustrial production should be implemented simultaneously with an improvement in the sectorial and functional structures of the agroindustrial complex. For this it is necessary to change the relations among the complex forming sectors of the agroindustrial complex, giving consumer sectors greater opportunities of influencing supplier sectors. The combination of planning levers with the development of direct contractual relations and the elimination of intermediary organizations could be the most acceptable solution of this problem. This involves, when approving the production and sale plan of the capital producing sectors of the agroindusrial complex, enabling agriculture itself to form the orders for equipment on the basis of economic contracts. At the same time, it is also fundamentally important to create economic incentives for an improvement in the quality of the delivered fixed productive capital. This can be attained, for example, if, along with other conditions, contracts provide for the fulfillment of all the operations for complex repairs and care of equipment by the forces of the industrial enterprises producing them.

In the area of price formation it is necessary to establish a stricter state control, not permitting a rise in the price of a unit of useful effect of means of production in the sphere of their production consumption. In order to ensure a price balance in the system of the agroindustrial complex, prices of products in all its sectors should ensure the same conditions of accumulation per unit of the integral indicator of production resources, including land resources, in a monetary evaluation.

An important role in the system of measures aimed at improving the economic mechanism of management of the agroindustrial complex is assigned to legal support. It is necessary to significantly raise the level of legal regulation of economic relations, in particular following the example of industry.

The concept of stability should not be identified with the demand for production stabilization. Conversely, an effective development of positive tendencies and flexibility (observance of the principle of elasticity) of rational decision making under changing conditions (foreign political situation, natural and climatic factors, social and economic development and so forth) are needed. At the same time, stabilization and even a certain local reduction in the production of intermediate products of the sectors of the agroindustrial complex are an inevitable measure of the period of transition to a more productive and, therefore, economically advisable stage in the development of agroindustrial production. This concerns products the production capacities for the processing of which in the localities do not correspond to the attained volumes of production and their transportation to the country's other regions or export presently is not possible or advisable. Therefore, stabilization of the production of some raw materials of agricultural origin is a necessary measure for the prevention of losses and an efficient utilization of the potential of the entire agroindustrial complex.

A certain reduction in the areas sown with some low-yielding crops greatly depending on weather conditions, as well as in the population of unproductive livestock, in a number of farms, rayons and large regions is necessary for the attainment of an improved regional structure of the agroindustrial complex on the basis of formation of specialized zones of production of basic commodity products of the sectors of the agroindustrial complex and development of intrarayon specialization and interregional exchange. The combined material and technical potential of the agroindustrial food complex released in the process should be directed to the production collectives, sectors and regions in which the most rapid and steadily progressive effect of the increase in food production throughout the country (region) can be obtained.

The most rapid elimination of losses in all the links and at all the stages of agroindustrial production plays an exceptional role in the solution of the food problem. Speaking at the November (1978) Plenum of the CPSU Central Committee, L. I. Brezhnev, discussing losses, especially stressed the exceptional importance of a radical solution of this problem: "Today we say with good reason that the problem of grain, vegetable, fruit and cotton losses is not only an economic problem. It is also a big political problem."

The set of measures for the fight against losses should be based on the realization of the above-mentioned steps for an improvement in the sectorial and functional structure of the agroindustrial complex and on the elimination of bottlenecks in the sectors of processing and infrastructure during the storage, processing and transportation of raw materials and products. For the purpose of increasing the balance of the structure and volumes of production in all the sectors of the agroindustrial complex, for the 11th Five-Year Plan provision is made for measures for an outstripping development of the concluding stages of production of the final product of the agroindustrial complex and its delivery to the consumer. For example, plans are made to increase capital investments for the establishment of storage facilities 1.6-fold and for the construction of intrafarm hard-surface

roads 1.4-fold. These measures must be combined with rationalization of the placement and specialization of production, bringing processing closer to the zones of specialized production of agricultural products and developing an interregional exchange.

An elimination of losses is, at the same time, a fight for an improvement in the quality and efficiency of utilization of production resources. It is necessary to concentrate efforts on the development and use of advanced technologies (primarily resource saving technologies) and agricultural management systems and on the overall nature of deliveries of machine systemsinstead of deliveries of separate units and so forth. Principal attention in the area of agriculture should be given to an improvement of qualitative indicators. An increase in the volumes of production (with due regard for the internal balance of the agroindustrial complex) should be ensured primarily through an increase in the yield of crops and in the productivity of livestock, refinement of the structure of plant growing and animal husbandry sectors and improvement in the qualitative characteristics of output. The following are necessary for this: an objective evaluation of quality, enhancement of the role of standards and their observance and consideration in prices through the value of useful effect of means of production and implementation of measures for the stimulation of the quality of output of the sectors of the agroindustrial complex.

In the solution of the food problem considerable attention should be paid to measures for the introduction of nontraditional technologies of protein and food production. As investigations and experiments under production conditions have shown, these measures can be realized without substantial capital investments and ensure the production of high-quality food products with the fullest utilization of initial raw materials.

The stability of development of the agroindustrial complex is connected with the formation of a stable and reliable system of organization and management of the establishment of the country's food program. "It is important to determine the stages and order of the solved problems in the program," L. I. Brezhnev noted at the October (1980) Plenum of the CPSU Central Committee. "And, of course, it is necessary to have a system of program management clearly establishing personal responsibility for every section of work and giving the necessary rights. Without all this the program is not a program, but a sum of good wishes." As noted at the 26th CPSU Congress, work on the food program should constantly be in the center of attention of the activity of party, Soviet and economic bodies.

The development and realization of the program is one of the basic tasks of the current 5-year and long-term period. This is not a one-time task. Conversely, this is large-volume work requiring constant efforts on the part of workers of many ministries, departments, scientific research institutions and organizations, the personnel training system and so forth. "The program should represent a substantiated plan of measures directed toward the end result and toward a complete solution of one problem or another, a plan based on accurate calculations," said L. I. Brezhnev at the October (1980) Plenum of the CPSU Central Committee.

The food program should encompass all the components of the agroindustrial complex in their organic interconnection, unity and development. The process of development of this program should be continuous and iterative, ensuring the realization of the principle of democratic centralism, and adaptive, creating conditions for a systematic refinement and increase in its efficiency.

Discussing the food program, K. Chernenko, member of the Politburo of the CPSU Central Committee, said at the festive meeting in Moscow devoted to the 111th anniversary of V. I. Lenin's birth that "this is an important and large-scale task. People's needs are growing constantly. Furthermore, not everything is obtained right away. In any work something must be corrected and completed. It is quite obvious that the fulfillment of the food program requires special attention, persistence and purposefulness. It requires a more rapid elimination of any manifestations of irresponsibility, laxity, lack of departmental coordination and mismanagement and a bolder search for new unbeaten paths." Therefore, when developing the food program, it is important to take into consideration the principles of unity of the process of its elaboration and realization. Ever newer circumstances requiring corrections of previously developed individual parameters will inevitably appear in the course of study of program outlines. Owing to the organic interconnection of the technological stages in agroindustrial production, this will lead to the need for refinement of the proportions among sectors, volumes of resources and so forth.

In accordance with "Basic Methodological Principles of Development of Overall National Economic Object Programs" approved by the USSR Gosplan it is advisable to work out the program in three stages. An analysis of the food situation in the country is made at the first stage. Then the initial assignment for the program is developed and approved. The preparation and approval of the draft program represent the concluding stage.

The basic task of the first stage in the elaboration of this program lies in the formulation of problems connected with the development of the agroindustrial food complex, which bring about an aggravation of the food situation. For this it is necessary to investigate the patterns in the formation and development of the agroindustrial complex beginning with the establishment of the basic values and goals of this social and economic system and of the structure of its organization and mechanism of functioning. It is necessary to compare the real system characterized by the actual values of parameters with its ideal representation in the form of a standard model described by specific standards (for example, norms of per-capita consumption of food). As a result, the following should be developed: concept of the solution of the food problem; consolidated structure of the program's goals and the tentative values of the most important object standards; functional, sectorial and regional structures of the food complex; list of priority proposals, which can be included in the plan at this stage; consolidated structure of the program (list of basic subprograms). The tentative periods and evaluations of the expenditures on the program should also be determined.

The food program, owing to its exceptional importance for the solution of social and economic problems, should be an object program and receive priority among other national economic programs in the allocation of various types of resources for its development and realization. The order of the technical and economic calculations and drafts of this program should correspond to the movement from the ultimate end of the agroindustrial complex through a system of measures to all the types of resources necessary for the attainment of intermediate goals at every stage of agroindustrial production.

Preliminary investigations show that the attainment of the basic goals of the agroindustrial food complex is connected with the development and realization of the following subprograms:

1. The subprogram "general concept and methodology": elaboration of the general concept of development of the agroindustrial food complex of the USSR; investigation and development of the functional, sectorial and regional structure of the agroindustrial complex; substantiation of the system of goals for the development of the agroindustrial complex; elaboration of basic directions in the solution of the food problem; creation of the methodological scheme of the food program and substantiation of the ways of its realization.

2. The subprogram "food production and the granting of services"; overall analysis of the state and tendencies of and prospects for the development of functional-sectorial and production-technological links in the systems of agricultural management (farming, plant growing, fodder production and animal husbandry) and product subcomplexes (grain, meat-/egg/-dairy, fruit-and-vegetable, potato and fat-and-oil subcomplexes; subcomplex for sugar production; sea-fish-product subcomplex; subcomplex for the production of salt, preservatives and food additives, of nontraditional types of foodstuffs and so forth); evaluation of supply and demand; evaluation of the possible volumes of production and expenditures of resources; analysis of problems and solution alternatives.

3. The subprogram "production and technology": investigation and analysis of the sectorial and territorial-sectorial structure and placement of production; development of concepts of improvement in the sectorial and territorial-sectorial structures of farming and animal husbandry on the basis of formation of specialized zones; evaluation of the variants of placement of production with due regard for the expenditure on the development of production and social infrastructures; elaboration of systems of economic management in the sectors of the agroindustrial complex and of resource saving technologies.

4. The subprogram "natural resources and the environment": overall evaluation of natural resources (land, water and forest) and of natural and climatic conditions of production; development of methods of rational utilization of land resources and of measures for their conservation and reproduction; elaboration of problems of preservation of the ecological balance; rationalization of waste utilization.

5. The subprogram "material and technical resources": overall analysis of the state and structure of the material and technical base of the agroindustrial complex; development of ways, methods and periods of elimination of the lag of the material and technical base of the processing industry and sphere of circulation; evaluation of the volumes and rational structure of capital investments; development of alternative variants of the structure of material and technical resources with due regard for the possibilities for their interchangeability.

6. The subprogram "labor": investigation and development of the occupational-skill and age structures of labor resources; development of demographic forecast; investigation of problems of migration and development of methods of its regulation; analysis of labor productivity and elaboration of proposals for increasing it, lowering personnel turnover and strengthening labor discipline; analysis of the system of training of mass trade personnel; elaboration of proposals for an improvement in the material conditions of work and employment in a rural area.

7. The subprogram "infrastructure": investigation and elaboration of problems of improvement in production infrastructure (procurements, storage facilities, material and technical supply and technological production support, transport, power facilities, repair base and types of services--agrochemical, veterinary, land organization, information-computer and so forth); elaboration of problems connected with the development of nonproduction infrastructure, including the system of public health, elementary education, municipal and everyday services and housing and road construction.

8. The subprogram "economic mechanism and management": analysis of production efficiency in the system of the agroindustrial complex; formulation of proposals for an improvement in intersectorial relations directing all the links of the agroindustrial complex toward the ultimate end; development of a system of economic incentives operating at all the levels of the agroindustrial complex; elaboration of proposals for an improvement in the system of collective wages and economic incentives; determination of the forms and methods of combination of the plan and direct contracts; provision of conditions for an enhancement of the role of contracts in the regulation of economic relations; development of economic and legal principles of contractual relations and of the strengthening of contractual discipline; elaboration of proposals for an improvement in economic legislation; development of the concepts and formation of the system of organizational management of the agroindustrial complex of the USSR; determination of the principles of object program planning and management in combination with sectorial and territorial-sectorial management; development of proposals for the establishment of a long-term scheme of management of the agroindustrial complex.

9. The subprogram "foreign economic relations": elaboration of the general concept of utilization of the foreign market for purposes of an efficient development of the agroindustrial concept; investigation of the structure of import and elaboration of proposals for its improvement; evaluation of the opportunities of export trade and of the ways of their realization; investigations of the possibilities of international division of labor and integration of CEMA members in the solution of the food problem; elaboration of proposals for the organization of output of the sectors of the agroindustrial complex on a compensation basis.

10. The subprogram "scientific and technical progress": development and substantiation of the basic directions in scientific and technical progress in the sectors of the agroindustrial complex; elaboration of an overall program for scientific investigations of problems connected with the development of the agroindustrial complex of the USSR for 1981-1985 and for the period until 1990.

11. The subprogram "efficiency and quality": development of the criteria and measurers of efficiency and quality; analysis of losses and unutilized opportunities with an indication of the reasons for their occurrence in all the technological production links of the agroindustrial complex; development of a program of urgent measures for an elimination of losses and realization of unutilized opportunities with an evaluation of the expenditures necessary for this; elaboration of proposals for an improvement in the standards of the assortment and quality of services.

12. The subprogram "social development": elaboration of the concept of social development of rural areas with the determination of immediate and long-term tasks; investigation of social factors in the economic development of the agroindustrial complex; evaluation of economic efficiency of social transformations in the system of the agroindustrial complex; substantiation of sources of material resources for the solution of social problems.

13. The subprogram "experiment": development of proposals for an organization of an experimental check and performance of social and economic experiments for the solution of various problems connected with food supply for the population and increase in the social and economic efficiency of the agroindustrial complex of the USSR.

The developed operational (program) goals, system models and problems should be intercoordinated. Such a combination of all the program tasks ensures a unity of approaches to the solution of the food problem and consistency of results. At the same time, it becomes possible to correctly coordinate the organizations developing individual subprograms in the process of program development. This equally applies to the determination of priorities and concepts, including for the periods of solution of the food problem, as well as to the comparison of the evaluations of program expenditures and results (effect of the program).

The food program is one of the main components of the economic policy of the party for the 11th Five-Year Plan and for a long-term period. At the November (1981) Plenum of the CPSU Central Committee L. I. Brezhnev noted that the "preparation of such a program is a highly creative and--there is nothing to hide--complex matter. It should combine efforts in agriculture itself, in the sectors of industry servicing it and in the systems of procurement, storage, processing and transportation of and trade in agricultural products. What is especially important, it should subordinate the work of all the indicated sectors to the common ultimate end--meeting the country's needs for foodstuffs."

The utilization of the uncovered reserves, increase in the effectiveness of capital investments and rational utilization of means of production and labor and natural resources will make it possible to give the country more grain, potatoes, vegetables, meat, milk and other necessary products. A skillful and efficient utilization of the advantages of planned socialist management, of the production and scientific and technical potential and of the initiative and creative work of millions of workers will contribute to a successful solution of the tasks envisaged by the program and to the attainment of new advances in communist construction.

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