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USSR Report

AGRICULTURE

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INCREASING EFFICIENCY OF GRAIN PRODUCTION IN KAZAKHSTAN

MOSCOW EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 2, Feb 84 pp 13-19

[Article by V. Shefer, sector head at the Kazakh SSR Committee of People's Control: "Effectiveness of Intensive Grain Production"]

[Text] At the 26th CPSU Congress it was particularly emphasized that grain production still remains a focus of attention for the work of party, Soviet and economic organizations as well as all rural toilers. The task posed is to increase the country's grain production to one ton per capita on the basis of an increase in harvesting yields. A major role in accomplishing this task should be played by the farmers of Kazakhstan's Virgin Lands, which in recent years have become a major granary of this country. The republic's vast grain producing sector is by now 30 intense years old. Never and to no one has Kazakhstan grain been easy to produce. Each year hundreds of thousands of equipment operators, truck drivers and specialists in agriculture and other branches participate in the production of that grain. The harder the struggle for it, the more substantial and valuable the victory. But farming in that zone markedly depends on the caprices of weather. Drought is a frequent occurrence in all regions of the republic. Farmers oppose to its consequences their heroic labor, creative ingenuity and competent management.

Most of the republic's agricultural enterprises have completed the transition from the introduction of discrete elements of a soil-conservation system to its comprehensive establishment. This has resulted in elevating the level of land utilization. Grain growers improved their handling of seed material. The aid provided by agricultural aircraft in sowing operations has markedly increased. The non-turnup system of soil cultivation has been introduced on practically all grain fields. Now virgin-land farming is substructed on a serious scientific basis. Soil-conservation agrotechnics developed by the republic's scientists has served to reduce the wind erosion of soils practically to a minimum as well as to markedly offset the consequences of droughts. All this has enabled Kazakhstan's grain growers to reap harvests measured in billions of poods of grain. For the republic as a whole the average annual grain harvest during the 1976-1980 period was 27.5 million tons, that is, it had nearly sixtupled in comparison with the period prior to the colonization of the Virgin Lands. Grain procurements in the republic increased by a factor of 7 and exceeded 16 million tons.

For many years now, more than 300 farms have been selling more than a million poods of grain each to the state, and some of them have been exceeding the one-million milestone by a factor of 3-7. Nearly 16 million poods of grain have been sold during the 1981-1983 period by the Sovkhoz imeni Kozlov, Naurzumskiy Rayon, Kustanay Oblast. This was greater by a factor of 4.5 than its annual plans. During the third year of the current 5-year plan this sovkhoz reaped a harvest that was greater than planned. For a number of recent years harvesting yields there have been stable. The secret of the sovkhoz's success is simple: it lies in elevating its grain farming practices.

On the whole, the farms of Kustanay Oblast have during 1981-1983 reaped nearly 12 quintals of grain per hectare from more than 4 million hectares. And the sovkhozes and kolkhozes of the Borovskiy, Fedorovskiy and Komsomol'skiy rayons reaped more than 14 quintals per hectare.

Harvests averaging 14.3 quintals of grain per hectare--the highest level in Kokchetav Oblast--were reaped by farms of Arykbalykskiy Rayon. A good harvest was reaped in the Bishkul'skiy and Sokolovskiy rayons of North Kazakhstan Oblast. Despite difficult weather conditions, the grain growers of Ural Oblast succeeded in adding 2.4 million tons of grain to the Homeland's inventories. In this connection, the country gained about 100,000 tons of grain in excess of the targets for the first 3 years of the 11th 5-Year Plan. Sales plans for all kinds of cerealcrops were overfulfilled. The strong and valuable varieties of wheat accounted for more than two-thirds of all grain sold. The greatest contributions to fulfilling the oblast socialist pledges for grain sales to the state were made by the toilers of the Burminskiy, Dzhambeytinskiy, Terektinskiy, Zelenovskiy and Kamenskiy rayons and the sovkhozes imeni the newspaper PRAVDA, Pugachevskiy and Permskiy.

Substantial accomplishments have been scored by the sovkhozes and kolkhozes of all the oblasts of Kazakhstan since the colonization of the Virgin Lands. During the 1954-1983 period the republic enriched the Homeland's inventories with about 21 billion poods of grain. In 8 years during that period the billion-pood mark was reached. A rather interesting pattern is observable: while the gap between the first and second time that the billion-pood mark was reached had been 10 years long (1956-1966), during the 9th 5-Year Plan this mark was reached by the republic twice, in 1972 and 1973, and during the 10th 5-Year Plan almost annually with the exception of the extreme-drought year 1977--but the shortfall in that year had been offset by the harvests during the other 4 years. Overall, during the 10th 5-Year Plan nearly one billion poods of good Kazakhstan grain has been sold to the state each year. However, during the first 3 years of the 11th 5-Year Plan the indicators were more modest owing to the unfavorable weather conditions. Even so, however, many of the branch's reserves could be utilized much more eficiently. The point is that improvements in grain production indicators directly affect the economic effectiveness of that production, while the branch's profitability influences not only objectively but also subjectively the motivation of the farms. Let us consider this problem in greater detail.

Endeavoring to enhance in all ways the effectiveness of agricultural production, the party and state constantly attend to increasing the profitability of grain production, which is an important indicator of the performance of grain growers. No one should be unconcerned by the care and outlays invested in producing grain. Every ruble invested in grain farming should produce a maximum yield.

Analysis shows that Kazakhstan's grain farming is more profitable than other types of farming. It accounts for most of farm income. Thus the sovkhozes of the Kazakh SSR Ministry of Agriculture derived the following income from grain sales: 1.6 billion rubles during the 8th 5-Year Plan; 1.8 billion during the 9th; and about 3 billion during the 10th, which is tantamount to more than half a billion rubles annually. The income during the first 3 years of the 11th 5-Year Plan was much smaller. And yet, this branch still harbors considerable unutilized potential.

It is perfectly obvious that the soil and climate conditions of the Virgin Lands are such that substantial grain harvests cannot grow of themselves. On these lands, under this sky, it is necessary to know how to work, and work properly at that. This knowledge is displayed by, for example, the grain growers of Kamyshinskiy Rayon in Kustanay Oblat where the structure of sowing areas is constantly being improved, the share of fallows has been increased to 18 percent, the introduction of a crop rotation system is nearing its completion and soil is cultivated only by the flat-plowshare method. It is now the second year in a row that Kamyshinskiy growers are reaping 3 to 4 quintals of grain per hectare more than planned and overfulfilling by a factor of 1.5-2 the grain sales targets while at the same time reaching profitability levels of more than 100 percent.

Problems of increasing production profitability are being insistently worked on at most sovkhozes and kolkhozes in Kustanayskiy Rayon, Kustanay Oblast. This work has been properly organized in the sovkhozes imeni Lomonosov, imeni Budennyy, Borovskiy and certain others. Consider for example the Sovkhoz imeni Budennyy where the profitability level of grain production during 1979-1983 was 104 percent. The increase in that level there occurred owing to both a re-examination of state procurement prices and the introduction of a price surcharge as well as owing to higher grain yields, improved quality of grain and reduced grain production cost. During 1976-1983 the farms of that rayon derived an extra income of 1,723,500 rubles for the quality of the grain varieties they sold, plus 20,467,800 rubles for selling durum and strong wheats. On the whole, the quality surcharge averaged 1 ruble 91 kopecks per quintal of grain. As a result, the grain profitability level increased by 32 percent.

During the pre-harvest period a grain quality commission is established in every sovkhoz by order of its manager. The same order also directs the organization of a laboratory and an inspection brigade, which usually consists of two teams, one for collecting samples and the other for analyzing them. As a rule, two members per team are sufficient. The collecting team is assigned means of transportation and each day it collects sheaves from swaths lying on

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five to seven fields measuring 250 to 350 hectares in area each. Its duties also include threshing the sheaves, preparing grain for analysis and taking part in determining the most complex indicators such as weed infesta-tion, kind, hyalinity, etc. Later, samples are collected from the threshing-floor piles as well as from the trucks dispatched to the grain reception stations. The laboratory has everything it needs: equipment and premises for the analysis of the collected samples. The analysis team consists of persons qualified to determine the gluten content and other grain quality indicators.

The Kustanay System provides for three inspections of grain quality. The first, preliminary inspection is conducted in the field so as to preclude random com-mingling of grain, separate it by quality and assemble large batches for daily delivery. During the second, basic analysis the actual quality of the grain processed after its sojourn on the threshing floor is determined. The third, final inspection is conducted for purposes of both quality control and verification of the evaluation of grain by the laboratory of the grain reception station. A broad use of this system on every farm in the republic represents an important potential for increasing the procurements of high-grade grain and making its production more efficient.

Seemingly everything is simple and logical, but in reality this whole procedure is quite complex. The trouble is that the more difficult it is to produce grain, the cheaper is the price at which the farms sell it. The existing procedure for the procurements of grain from agricultural enterprises is such that the procurement points raise their sales price by 4-6 rubles per quintal after having to spend 35-50 kopecks per quintal on the additional processing of weed-infested and humid grain. After all, they follow the standard of 15 percent moisture content and 1 percent weed infestation. The weather conditions in 1983 prevented most farms in Kustanay Oblast from delivering grain meeting this standard. The exemptions granted for that poor harvest year alleviated this problem only slightly, considering that last year the harvesting combines provided a great deal of grain with a moisture content of 23-25 and more percent and considerable weed infestation. The protein in such grain is slightly diluted, as it were, but after drying and cleaning, the grain reaches the quality expected by the grain growers and fully meets the requirements for Virgin Land strong and durum wheats--the result is that it is the procurement points that benefit from it rather than the grain growers. Such is the fundamental injustice of grain growing work, and it definitely can be remedied.

Calculations by the Uritsky Rayon Agricultural Administration in Kustanay Oblast show that the processing of grain on sovkhoz threshing floors without drying cost 22-25 kopecks per quintal in 1983, whereas at the grain-silo stations the cleaning and drying of grain cost 3 to 6 kopecks per quintal, because of their more productive and up-to-date equipment and technology. If, moreover, we consider the huge quantity of grain wasted on the sovkhoz and kolkhoz threshing floors, it is clearly necessary to decide just who should handle the drying and cleaning of grain.

It would be more advantageous to the national economy if the procurement stations were to handle these operations. Consider a few statistics: in Uritskiy Rayon there are 103 sovkhoz and kolkhoz threshing floors costing altogether 2.5 million rubles. About 500 mechanics, fitters and technicians, let alone other workers, are assigned to their operation, and the annual expenditures exceed 0.5 million rubles. It would be cheaper to transport grain directly from the field to the grain-silo stations, but this is impeded by the applicable GOST's [all-Union state standards] and instructions.

Field losses of grain due to refaction have been fluctuating upward in recent years. For the 1976-1983 period as a whole the profitability of grain production has dropped 1.8 percent owing to grain refaction.

The fall in the prestige of grain is an alarming signal that not only is the solution of the grain problem becoming complicated but also the economic possibilities of the farms are deteriorating. Thus, during the 9th 5-Year Plan the republic's farms derived an average income of 37 rubles per ton of grain; during the 10th 5-Year Plan, 51; and during the years 1981-1983, only 39 rubles. Yet during the same period grain procurement prices rose 36.4 percent. But the expenditures per grain-crop hectare have more than doubled and now average 94 rubles. The average production cost per quintal of grain was 7.18 rubles during the 9th 5-Year Plan, 7.56 during the 10th and 8.46 during the 1981-1983 period.

The complex whole of measures to strengthen the economics of the republic's grain production should include such a topical issue as the further refinement of the differentiation in procurement prices of various types of grain, especially wheat. Owing to imperfections in these prices, many of the republic's sovkhozes and kolkhozes cannot attain a stable profitability of grain prouction. What is worse, of the 89 sovkhozes chronically operating at a loss, 11 percent are represented by specialized grain farms. Some of them are located in the zone of hazardous farming. It is characteristic that on these sovkhozes the amount of mineral fertilizers applied per hectare was 6-9 kg compared with 28 kg on profitably operating grain sovkhozes. A similar ratio applies as regards the application of organic fertilizers, pesticides and herbicides. But strange as it seems, the principal cause of this situation is due to the financial instability of the grain farms operating at a low profit or at a loss. This has also affected personnel turnover. On every economically weak grain sovkhoz this turnover is 18-20 percent higher than on the profitable and financially stable sovkhozes. During the years 1979-1983 the shortage of full-time work-hands on economically weak grain farms averaged 76 persons, including about 43 tractor operators-mechanics, per farm.

In addition to refining the differentiation of procurement prices for individual farms, rayons and oblasts, there is a need to exploit fully the incentive function of prices in increasing the production and improving the quality of grain. Calculations show that the solution of these as well as certain other aspects of the ordering and application of grain prices would require an additional 160-170 million rubles for the planned volume of procurements in 1985. This requires an efficient and scientifically substantiated meshing of all the factors for the maximal utilization of the grain growing potential of Kazakhstan as well as the equalization of the economic conditions of farming. In terms of the overall indicator of economic effectiveness--the profitability level of commercial grain--a stable increase over the 5-year periods still has not been achieved. On the contrary, this indicator is declining. Thus, during the 8th 5-Year Plan the profitability level averaged 56.6 percent for the republic's sovkhozes, while during the 9th and 10th 5-Year Plan periods it averaged about 50 percent. During the first 3 years of the current 5-Year Plan the profitability of grain production had even somewhat declined. Yet greater fluctuations and even a decline in economic effectiveness were observed during the billion-pood years when the grain-growing conditions were more or less the same in all of the republic's oblasts.

Analysis shows that during the pre-Virgin Lands period (1953) the area of land under cereal crops in the republic was a little more than 7 million hectares; the yields averaged 7.7 quintals per hectare; gross harvest was 5.4 million tons, and the grain sold to the state amounted to 148 million poods, while the marketability of grain production was 44.1 percent. Three years later, when Kazakhstan had for the first time delivered to the state one billion poods of grain, all these indicators improved. During these 3 years the area under grain crops increased by a factor of 3.1, yields rose to 10.6 quintals per hectare, and the profitability level of that first billion poods of grain was 53 percent, whereas during the pre-Virgin Lands period grain had essentially been produced at a loss.

During the first year of the 8th 5-Year Plan (1966), following a number of measures taken in accordance with the decisions of the March (1965) CPSU Central Committee Plenum, the Homeland was provided for the second time with a billion poods of Kazakhstan grain. The profitability level of the grain produced reached 92.6 percent. The sales of grain yielded an income of 623.5 million rubles. The profitability of the third (1972) and fourth (1973) billions of poods of grain decreased somewhat owing to a marked increase in grain production cost, and amounted to 88.7 and 60.2 percent, respectively.

The overall indicator of economic effectiveness—the profitability level of grain production—reached its peak value during the year of the fifth billion poods of Kazakhstan grain (1976)—93.6 percent. The profitability level during the year of the sixth billion poods (1978) dropped to 61.3 percent, which was nearly 10 percent below the union indicator. This was largely due to the consequences of the great drought of 1977, when some of the republic's farms could not produce enough high-grade seeds to meet their own needs.

The struggle for the seventh Kazakhstan billion (1979) was crowned with yet another resounding success, in terms of volume and economics. A recordbreaking quantity of grain was delivered--1 billion 262 million poods. The proitability level of grain production rose to 67.8 percent. Even so, however, this indicator was 25.8 percent lower than that achieved early in the 10th 5-Year Plan period (1976). The profitability of the eighth Kazakhstan billion poods of grain (1980) fell markedly still further and barely reached 40 percent. During the first 3 years of the 11th 5-Year Plan (which have not been billion-pood years) this indicator has hovered at nearly the same level. Reducing the production cost per output unit is an important--and to many farms, the principal--potential for making grain production more profitable. The growth of this cost over a prolonged period of time is to some extent due to the fact that during the 8th 5-Year Plan 36 percent of that growth was due to changes in wages and 40 percent due to changes in the prices of material resources, whereas during the 9th 5-Year Plan the corresponding proportions were 27 and 58 percent, respectively, and during the 10th, 19 and 63 percent. In addition, production cost increased owing to the overestimation of fixed capital and the revision in the norms of its depreciation. In addition, during these periods, as well as during the first 2 years of the 11th 5-Year Plan, the prices of agricultural products, and especially of seeds, had risen. The production cost of home-grown seeds also increased markedly. All this was bound to affect adversely the economics of grain production.

Progressive technology and a high level of agrotechnics can, as practice shows, markedly alleviate the adverse consequences of the growth in production cost. Since the Virgin Lands began to be colonized, the farming system has experienced radical changes. Farms have converted from the turnup system of soil cultivation to the soil conservation system. Fertilizers are now widely applied and special attention is paid to drought control and maximum accumulation of moisture in the soil and its more economical utilization. Conversion to a planned system of soil cultivation based on fallows-grain rotation is under way, with the rotation period being kept short so as to promote the protection of soil against wind erosion, increase grain yields and reduce production cost.

As analysis showed, grain production cost on farms that broadly apply the soil-conservation system of farming on their entire area is much lower, and labor productivity is higher, than on farms on which the new technology is applied to not more than 20-25 percent of cropland. Soil-conservation measures result in reducing the outlays of labor and funds per hectare sown. Erosion-control equipment is more productive and less metal-intensive than implements of the plowshare type. The application of the soil-conservation system of farming in the steppe and arid-steppe zones produces an economic effect that has been calculated at 98.7 million rubles a year.

A tried and tested safeguard for reducing production cost per output unit is the deepening of specialization and intensification of grain production. A breakdown of sovkhozes by level of specialization shows that, in the most favorable farming year 1979, commercial grain accounted for more than 60 percent of the total value of output sold at 545 of the 619 specialized sovkhozes, 40 to 60 percent at 331 sovkhozes and 20 to 40 percent at 282 sovkhozes. Most of the latter two sovkhoz groups are located in the grain region of the republic but their operations are of a diversified nature. On the grain sovkhozes where the level of specialization in grain growing exceeded 60 percent, the profitability level was 82.3 percent. On the sovkhozes where the level of this specialization was 20 percent, the grain profitability level was half as high and the grain production cost twice as high. On the farms where the level of specialization is still lower, economic indicators cannot withstand any criticism. In 1982 and 1983 these contrasts became even sharper. So far, more than 300 sovkhozes producing commercial grain have been growing grain on an area aggregating about or slightly more than 6,000 hectares each. During the 1979-1982 period grain yields in these sovkhozes averaged 6.9 quintals per hectare; labor expenditures per hectare, 2.34 man-hours; and production cost per quintal of grain, about 15 rubles. In this connection, in one-third of these sovkhozes this last indicator ranged from 12 to 46 rubles. All this points to an inexhaustible potential for reducing the production cost per output unit of Kazakhstan grain.

Intensification in grain production is chiefly characterized by an increased use of means of mechanization, electrification, land reclamation and agricultural chemicals as well as by the introduction of higher-yielding crop varieties and the achievements of science and practice. Grain growers are being provided with new improved production tools which serve to increase productivity by a factor of 1.5-2 and reduce labor expenditures by 25-35 percent. Comprehensive mechanization of grain production, and especially of harvesting, is spreading. As the material facilities improve, so does the agrotechnical level: the quality of soil cultivation and sowing has improved and simultaneously the time taken to perform operations has been shortened. Plowing performed in the optimal period of the year serves to increase grain yields by 2-4 quintals per hectare and markedly reduce the volume of field operations in the spring.

Numerous examples of the work of kolkhozes and sovkhozes show that wherever a solid and scientifically substiantated approach is followed in working the land, wherever land fertility is increased in a planned manner and farming practiced steadily, not only the harvests are good in any year but also the branch's profits are high. Practical support is deserved by the systems of farming, crop rotation, sowing structure and land cultivation which, under particular conditions, produce the optimal end-results and assure the fulfillment of the applicable state plans not by means of extensive factors, that is, through the expansion of the sowing area, but by means of intensification and primarily through increasing crop yields.

Any agronomist knows that high crop yields can be achieved at a low cost only upon carrying out the complex whole of agrotechnical measures of which the improvements in seed growing are the most important. The USSR Sortsemprom [Varietal Seeds Industry Administration] has been established—along with more than 100 varietal seed growing associations in the republics and oblasts for the purpose of directing seed growing activities. The network of specialized seed growing farms has been markedly expanded. Scientificproduction associations, to which primary importance is being attached at present, are operating effectively.

For example, in Borovskiy Rayon, Kustanay Oblast, special attention is paid to seed material. In that rayon each year 94 percent of seeds meet the requirements for grades 1 and 2. In addition to the regionized wheat varieties Saratovskaya 29 and Bezenchukskaya 98, the following new varieties are being tested and introduced: Ural'skaya 52, Mironovskaya, Kurganskaya and Saratovskaya 46. High-yielding varieties of barley--Donetskiy 8 and Karabalykskiy--are available. A rational combination of seed growing with

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crop rotation is a major factor in the intensification of grain production. In that rayon the condition and potential of every field are well known. The dynamics of grain-crop yields over 17 years in a breakdown by all predecessors and the principal methods of soil cultivation and application of fertilizers were analyzed on the farms of Borovskiy Rayon. Also analyzed were the extent of the weed infestation of plowland and the yield levels of the wheat grown on fields where the soil has been basically cultivated over periods ranging from 1 to 4 and more years. On the basis of these studies, the most diverse variants of crop deployment and soil cultivation are employed. For example, if a field is weed-infested, it is fallowed if scheduled to be left so under the crop rotation system, but if a field is clean, the stubble is left on it. To be sure, this necessitates increasing the fallow area during the subsequent crop rotation. In a nutshell, the various types of crop rotation are preserved within limits, but deviations in their structure and the alternation of crops are boldly carried out upon restoring the set pattern during the next crop rotation. Such manipulations serve to increase the yield level per grain hectare by 14-18 percent.

An important potential for increasing grain yields is a rapid and highly competent conduct of sowing. In Borovskiy Rayon the pre-sowing tillage of soil is carried out with the aid of KP-23.8 cultivators down to the seeddeposition depth. This is a mandatory condition. The cells are completely prepared before sowing and thereupon toothed SES-2.1 seed drills plant seeds across the cultivation lines. The sowing norm is 2.3-3.2 million germinating seeds per hectare depending on each cell's potential possibility of forming the optimal spacing density of the plants at harvesting time-4 to 5 million plants per hectare with the number of grains averaging 22-26 per ear. Then the biological productivity is approximately 22-25 quintals per hectare on reducing normative losses within the limits of 12-17 percent.

The advanced knowhow of the farms on which yields of 20 quintals per hectare have become the norm should become the property of farms in all the oblasts of Kazakhstan. It should be borne in mind in this connection that, as the longtime experience of the Kustanay grain growers has shown, even on highly fertile soils it is not possible to grow good harvests if relatively unproductive varieties are planted. But there is a need for not only new and higher-yielding cereal-crop varieties adapted to the local severe conditions of Kazakhstan but also additional outlays, especially fertilizers.

Intensive varieties are distinguished from ordinary and often less demanding ones in that they are extremely responsive to fertilizers, both mineral and organic. The principal precondition for their high yields is a sufficient level of soil fertility, created and maintained by means of an intensive and comprehensive application of organic and mineral fertilizers as well as soil reclaimants in a mandatory combination with a broad use of pesticides, growth regulators and other chemical and biological preparations.

Analysis shows that the farms close to supply bases often receive several times as much fertilizer as the more remote farms. The latter, as a rule, are supplied with much smaller than ordered quantities of fertilizers, and in a less satisfactory variety at that. At the same time, a cautious response is indicated toward the arguments of individual farm manages and experts who attribute low yields to shortages of mineral fertilizers or pesticides or to the absence of high-yielding, intensive and profitable varieties. All these factors are incontestably very important, but if farms each year plant substandard seeds which, moreover, germinate early and ahead of schedule, then none of these factors will produce the desired results. For experience and scientific studies of Virgin Lands fields have long since demonstrated that the yields and profitability of grain crops are only half-dependent on weather, the other half being dependent on the agrotechnical level of farming as well as on the level of the organization of work.

A considerable role in the application of continuous-flow industrialized production techniques, progressive technologies and a rational organization of labor is played by the introduction of the advanced method of the comprehensive utilization of agricultural equipment at harvesting time. The Ipatovskiy Method, applied with allowance for local conditions, has become widespread.

As known, in recent years Kazakhstan farmers have introduced a number of interesting methods for providing transport services for large sets of harvesting machinery. All Virgin Lands oblasts employ broadly the so-called portion method of grain unloading, with the combine harvesters emptying its bin into the truck trailer awaiting at the field edge regardless of the amount of grain in the bin. The purpose is the same as for the combined-trailer method: fewer cabs and more trailers should be used in transporting grain so as not to waste the time of combine harvesters while waiting for the trucks to arrive and avert idle truck runs. The advantages of this method were very rapidly appreciated in Ural Oblast, where in 1983 it was used on most grain farms. This required a large additional number of trailers. On the decision of the oblast party committee, these trailers were removed from departmental motor pools and promptly dispatched to the countryside.

At the sovkhozes with a sufficient number of high-power tractors the stationary-replacement method of transporting grain, first applied in Tselinograd Oblast, is popular. The tractor operates with two couplings and two trailers which are deployed on sites of the probable unloading of combine harvesters, and then it hauls these trailers, one after another, to the threshing floor. At the experimental sovkhozes of the all-Union scientific research institutes imeni S. Seyfullin and imeni Kazakh TsIK, two K-700 tractors handle the transportation of grain from 11-14 combine harvesters each. This new method proved itself to be markedly superior to the small-link method, and it serves to concentrate the work of a brigade's combine harvesters on one field, and simplifies all forms of servicing. The organization of labor then also improves. What is more, then it is possible to release land for re-cultivation more rapidly, and it is easier to keep track of the harvest reaped from discrete fields and the organization of threshing operations is simplified. But the most important advantage is that the productivity of transport is increased by a factor of 10-15, while the productiity of combine harvesters is increased by 15-25 and more percent. The efficiency of utilization of K-700 type tractors and their attachments has increased. This has dispensed with the need to mobilize motor vehicles from

industrial and other enterprises for help on the farms during the peak of the harvesting season. In this connection, the cost of grain transportation has decreased by 13-16 percent below the normative cost.

Intensification and the increased effectiveness of production processes are prompting a re-examination of many aspects of farming from the standpoint of the needs of the present and the future. For example, the non-turnup system of soil cultivation is becoming increasingly popular in zones with insufficient moisture. The advantages of this system are obvious: the productivity of the tractor pool increases, agrotechnical schedules are followed more rigorously and the soil's retention of moisture is improed, which in the final analysis pays off with higher harvest. However, wishes alone, no matter how ardent, are not enough for introducing the non-moldboard system. Flat-cutting plowshares along with a complex whole of implements as well as stubble drills are needed.

Or consider another question that also has a direct bearing on grain production. This concerns the traditional methods of using K-700 tractors in the steppe regions of Kazakhstan and probably elsewhere as well. These giant wheeled tractors deserve the highest appraisal, particularly when equipped with a suitable set of attachments. But there is hardly any reason for regarding them as universal-purpose tractors. They are good haulers and they plow well if the soil is dry, but they cannot be used for sowing, because then about 15 percent of the land is trampled by their wheels. Nevertheless, during the sowing season the K-700 is driven everywhere on the fields, often under no load, thus increasing the expenditures per hectare. In this matter there is really no reason for raptures! As for fallows, this heavyweight wheeled giant should not be let loose on them, for both technological and purely economic considerations.

The republic's grain growers are perfectly aware of the tremendous amount of work to further develop grain production being carried out by the CPSU Central Committee, the Kazakh CP Central Committee and the republic's government. But in order that the effects of these measures be more substantial, considerable attention should be paid to not only the organizational but also the economic aspects of all the processes of the intensification of the republic's grain production.

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IMPORTANCE OF SEEDS FOR KABARDINO-BALKAR ASSR

Moscow SEL'SKAYA ZHIZN' in Russian 26 Feb 84 p 1

[Article by S. Lorsanukayev: "Care for the Seeds"]

[Excerpts] "Most of the kolkhozes and sovkhozes in the republic have fully provided themselves with seeds of regionalized varieties" says Minister of Agriculture of the Kabardino-Balkar ASSR V. Beslaneyev. "The demand for corn seeds is 4300 tons, and the farms have turned over for exchange 5600 tons. Some 110 percent of the plan for leguminous seeds has been put in. Many have achieved high indicators due to the grain preparation. The republic's farms have 90 percent first and second grade seeds. They pay a great deal of attention to selecting heavy-producing varieties and hybrids. For example, new varieties of barley have been studied at the variety-testing sections at some farms. The promising "Tsiklon" variety was particularly interesting. Last year about 5000 hectares were seeded with it, and each of them gave a record yield--31.8 quintals each. Now almost 15,000 hectares have been allocated for "Tsiklon", and in the future it will be the basic variety."

Corn has brought well-deserved fame to Kabardino-Balkariya. Plantings of it occupy over 60,000 hectares. It is cultivated in accordance with industrial technology. Last year the farmers sold the state more of its grain than was outlined according to the plan.

Kabardino-Balkariya is a major corn-seed supplier for more than 30 corn-sowing regions in the country. Right now in its elevators it is the "peak" hour.

Local purchasing agents set about inspection of the rich corn harvest last fall in an organized and harmonious manner. The equipment knows no downtimes now. Some 45 dryers of the SKP [no further identification] are operating faultlessly. Two new chamber dryers have been put into operation. The work does not abate day or night. The purchasing agents have changed to a new form of work organization--the brigade method. As a result, the people's attitude toward work has changed, labor discipline has been strengthened and labor productivity has risen. This has provided gratifying results. For example, the corn drying was completed two weeks earlier than last year. For prompt and high-quality grain drying and ensuring its preservation in 1983 by resolution of the Board of the RSFSR Ministry of Procurement and the Presidium of the Republic Trade Union Committee of agricultural workers, the Kabardino-Balkariya Administration of Grain Products was awarded second place. "We began calibrating the seeds on 1 October, two months earlier than usual," said V. Pavlenko, chief of the administration. "This made it possible for us to calibrate 10,000 tons more of corn seeds than in the same period last season, and the main thing-the seed quality was raised."

It is specified that the calibration be concluded before 1 April and its shipping to the consumers-by 15 April. Seeds have already been sent to Irkutsk, Novosibirsk, Gorkiy and other oblasts.

The enterprises of Kabardino-Balkariya are working quite well now. There is, however, a grievance against the RSFSR Ministry of Procurement: it should show more concern for expanding and reinforcing the material-technical base of the sector. So far, for example, it has not succeeded in avoiding bale storage of the corn cobs. There is a shortage of dryers. Threshing operations must be intensified.

KURSK OBLAST WINTER CROPS DISCUSSED

Moscow SEL'SKAYA ZHIZN' in Russian 29 Feb 84 p 1

[Article by A. Trubnikov: "For the Winter Crops-Special Attention"]

[Text] The winter crop field of Kursk Oblast occupies over 500,000 hectares. The farmers have done a great deal to lay a good foundation for the harvest. More organic fertilizers have been used than in past years. Over almost the entire area, fertilizers have been spread in the rows during planting, and the composition of the predecessors has been improved. The proportion of highly productive varieties of an intensified type has increased.

During these days the grain growers keep an attentive eye on the condition of the sowings and strive to reduce to the minimum the adverse effect of unfavorable weather conditions on the size of the yield. Because of drought in the summer and fall, the fields have gone into the winter with reduced reserves of moisture, particularly in the eastern regions. The snow cover was very thin, and a brackish ice crust formed.

"To the caprices of the weather we have opposed a high level of agrotechnology," said A.I. Fokin, chairman of the Rossiya Kolkhoz of Medvenskiy Rayon. "The fields covered with an ice crust were treated with potassium salt. If there are snowfalls, we institute snow retention, and regulate the snow melt. In order to retain the good in the soil, six combined units have been readied, each of which consists of two spreaders and hitches for the fallows. With units of this sort, the machine operators will simultaneously place nitrogen fertilizer by the root method and mellow the upper soil layer. In case of a delay in treatment due to bad weather, there are reserve units."

Last year the kolkhoz obtained about 40 quintals of winter crops per hectare, and now they intend to take 45 quintals each. The farmers of the Kolkhoz imeni 1 May in Kurskiy Rayon count on raising more winter wheat and rye. When I arrived at this farm, they had just begun scattering potassium salt with a ground apparatus.

"Of course, it is best of all to combat the ice crust by means of snow retention, since the ice gradually breaks up under the snow covering," said L.V. Klimov, chairman of the kolkhoz. "But spreading mulching materials is also effective. When exposed to them, particularly on sunny days, the ice

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loosens and becomes more air-penetrable. The trouble is that there is not enough fertilizer to treat all the masses properly."

Similar complaints come from other places as well. It would appear that the RSFSR Ministry of Agriculture will find a possibility of accelerating the shipping of deposited potassium fertilizer to the oblast. At the same time, one cannot fail to note that there is so far poor dissemination of the experience of farms which are also using peat meal, ash and other materials and are making a mixture of fertilizers with sand or phosphorite meal.

The kolkhoz and sovkhoz directors who store up mulching resources for the future are right. After all, the possibility is not eliminated of ice crusts appearing at the end of the winter and beginning of the spring, when the winter crops are particularly weakened. Then you cannot do without repeated treatment.

These days, mulching of winter crops is carried out everywhere. Included in the work are both ground devices and agricultural aviation planes. Things are going well at the kolkhozes and sovkhozes of the Sudzhanskiy, Oktyabr'skiy, Korenevskiy and a number of other rayons. Agronomists and the directors of the Ponyrovskiy and Dmitriyevskiy rayon farms, however, are not hurrying with this urgent matter, even though sizeable areas here are under an armor of ice.

In most of the rayons and farms, every 10 days they take core samples for cultivation. Systematic monitoring of the condition of the winter crops makes it possible for the specialists to take the appropriate agrotechnical measures promptly. As one of the recent cultivations showed, along with well preserved seedings, there were also several weakened ones. In consideration of the soil collation maps and the supplementary feeding done in the fall, the chemization station of the oblcel'khozkhimiya [Agricultural Chemistry for the Oblast] with the participation of local specialists determines for each field the fertilizer portion, the periods and the methods for applying them. Not a single hectare remains without supplementary feeding. But good plans can remain on paper, unless in the very near future the delivery of fertilizer is completed at all the farms, as well as fitting out the units for root application of fertilizers. Delaying construction of the take-off and landing field for the planes in L'govskiy, Solntsevskiy and Fatezhskiy rayons also imposes danger. At unpaved airfields, it is impossible to begin aerial topdressing in the earliest periods, which give the best agrotechnical effect.

With a moisture deficiency it is very important to harrow over the good sowings as quickly as possible. At the Sudzhanskiy Rossiya Kolkhoz, for example, they overhauled enough units and harrows to keep count of the moisture covering not daily, but hourly. Unfortunately, they are not well prepared everywhere to carry out this agrotechnical procedure.

Chemical weed eradication on the weedy fields has been included at many farms in the agrotechnical complex. The appropriate herbicides have been deposited. It is important to determine these fields in situ as quickly as possible. A warm winter, with little snow, contributed to the appearance of crop pests such as rodents. Unfortunately, the struggle against them is only weakly being waged.

WINTER CROPS IN VORONEZH OBLAST DISCUSSED

Moscow SEL'SKAYA ZHIZN' in Russian 5 Mar 84 p 1

[Article by A. Lemchenko and A. Kat'kalov: "Concern for the Winter Crops"]

[Excerpts] Our conversation with head agronomist of the Ostrogozhskiy Rayon Agricultural Administration, V.F. Yasalov, began with an evaluation of the present winter crop field and its potentials. The farms in the rayon have taken up 20,000 hectares with winter crops. They have sown them, in accordance with a high degree of soil preparation, with top-grade seeds of the heavy-yield varieties.

Particularly high hopes are placed on a new variety of winter wheat, Tarasovskaya-29. Last year it yielded 40 quintals of grain from each of 1000 hectares, and therefore in the fall the Ostrogozhsk farms had already taken up 12,000 hectares with it. All the plantings went into wintering in good condition. A high level of agrotechnology had its effect: they were positioned according to the best predecessors--fallows, annual grasses and leguminous crops--beginning in the fall they received nitrogen supplements.

There is one more important point--supplementing the crops with ammonium nitrate. Depending on their development and the presence of a slope, the root supplement will be done by grain spreaders at right angles to the rows, or on the diagonal.

The oblast's winter seedings are extensive and they are dissimilar with respect to quality. Therefore, new, more efficient means and methods of caring for them must be sought. Let us take the supplementing for the crops. During the past year, along with dry fertilizers, increasingly used is root supplementation with ammonium hydroxide.

In Talovskiy Rayon, one of the major grain belts of the oblast, the Rodina Pyatnitskiy Kolkhoz, for example, obtained 52 quintals of grain from each hectare. This was not by chance. Head agronomist V.I. Skrebnev makes the "weather" on the farm. Also deserving words of praise is head agronomist of the Zarya Kolkhoz, S.V. Dobrokvashin, who succeeded in reclaiming fertility of the soils and achieving guaranteed grain yields.

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The Talovskiy people have distributed winter crops over 28,000 hectares, a considerable portion of which have passed to wintering in good condition. The first guarantee of a high yield is well prepared fallow and also fields after peas, annual grasses and corn for green fodder. A considerable part of the winter plot is taken up with productive varieties such as the "Tarasovskaya-29" and "Severodonskaya", planting done in the best calendar periods, with multiple mineral fertilizers placed in the rows.

Since fall, due to the shortage of fertilizers, the Talovskiy people have been able to supplement only 12,000 hectares of grain. The remaining sowings receive nitrogen supplement as the snow leaves the fields. All the equipment for this has already been readied. The plans are to place fertilizer over 6000 hectares by airplanes, and to fertilize the remaining masses with ammonium hydroxide by the root method, or ammonium nitrate with the aid of grain spreaders with special attachments.

What can be said on the whole about the winter field of Voronezh Oblast? As the data from the investigation attest, despite the unfavorable wintering conditions, winter crops over a considerable area are found in satisfactory condition. Here, of course, an influence has been exerted by both the high agrotechnical level of the sowing and the caring for the crops, carried out from fall onward. This does not mean, however, that all the seedings are securely preserved. In some places the February frosts have inflicted damage on the winter plots. Repeated testing of the core samples for the growth shows that at least 100,000 hectares can become diminished and not provide the necessary yield. What undertaking is outlined by the Voronezh people?

First of all, to provide spring supplementing for the entire 350,000 hectares that did not receive it during the fall period. On the larger section the crops will be nourished by the root method, and on the smaller—about 130,000 hectares—by means of airplanes. With a view to preserving the moisture in the soil, a considerable number of the sowings will be harrowed.

The farm directors, however, should be reproached for the fact that not all reserves for caring for the winter crops have as yet been utilized. TUR preparations serve as an efficient means against this phenomenon. Unfortunately, many specialists who are fully provided with this preparation have had a disdainful attitude toward it since the fall, and have treated the sowings over only 36,000 hectares. The Anninskiy, Kamenskiy, Paninskiy, Talovskiy and Liskinskiy rayon farms and those of a number of other rayons have not used the actual preparation on even a single hectare.

In the spring the Voronezh inhabitants can make up for many of the omissions of the fall. In particular, they can use TUR on all the winter crops sown to fallow.

CENTRAL CHERNOZEM ZONE SEED CONDITION DISCUSSED

Krasnodar SEL'SKIYE ZORI in Russian No 1, Jan 84 p 35

[Article by N. Burova, senior scientific research associate of the All-Russian Scientific Research Institute of Plant Protection: "High Requirements for Seeds"]

[Text] Good seed resources are characterized not only by the sowing and yield qualities of the grain selected. No less important is its "health." It is known that seeds can serve as the source of infecting plants with pathogenic fungi and bacteria. They are often the place where agents of infectious diseases are preserved, the source of regenerating them in the following year. Pathogens can be carried by seeds into new regions, where certain diseases had not been until this time.

The role of seeds in transmitting infections varies. In some cases the pathogens, located on the seeds or within them, are the only way to regenerate the disease, while in others—the infecting source on the seeds only intensifies the appearance of the diseases, the agents of which may be retained in the soil or on the vegetation residues.

Sporing of the seeds of wheat with solid smut may serve as an example of surface infection. I wish to emphasize the fact that in some oblasts of the Central Chernozem Zone and the Northern Caucasus, this disease still holds one of the first places with respect to rate of occurrence and damage.

Only high-quality disinfection of the seeds, combined with a high level of agrotechnology, saves the plantings from infection with solid smut. We note that favorable conditions for its infection of the wheat plantules occur at a soil temperature of 10-15 degrees and humidity of 40-60 percent. Under these conditions most seriously afflicted with solid smut are the late plantings of winter wheat and the early plantings of summer wheat.

There are no secondary agrotechnical procedures to combat solid smut. Adhering to correct crop rotation, applying fertilizers, optimum sowing periods and correct depth of raking in the seeds are of tremendous importance, since they contribute to good development of the plants and increase their resistance to diseases. The reason for considerable farming losses is the rose color of rye and wheat. Affected grain is distinguished externally from the healthy only by color. Among the lightly affected seeds the transition to rose color is localized, while among the seriously affected ones it is spread over the entire surface.

In the group of reasons causing the grain to turn rose-colored, microscopic fungi are by no means in last place. Often it is not connected with fusarial disease. The formation of the rose pigment may be brought about, given favorable factors of the external environment, by various types of phytopathogenic and semi-saprophytic bacteria. The most probable cause of this disease is a complex of factors, including microorganisms, higher humidity at the end of the grain vegetation (particularly in the harvest season) and changes in the fermentative activity of the grain.

Results of investigations of the grain of winter rye and wheat from Voronezh, Belgorod, Lipetsk, Tambov and Rostov oblasts showed that the highest percent of grain with a rose color was noted in 1978 (up to 18 percent). In subsequent years, this affliction was only in winter rye.

With a comparison of the germination of seeds with a rose color and healthy ones, it was established that the former germinate only by 4 percent, and the latter-by 88 percent.

Under production conditions, in moist years the seeds are afflicted with black germ. The level of this disease at times reaches 30 percent.

. We made mycological analyses to reveal the microorganisms causing the disease. It was established that the black-germ wheat seeds lose up to 15 percent of the germinating capacity.

That is why caring for tomorrow's grain begins with preparation and selection of seeds possessing high variety qualities, free from pests and disease.

Grain designed for seed purposes requires particular attention. In the first place, good storage conditions are necessary. In the second place, urgent measures are needed to bring the grain into condition with respect to moisture.

Disinfection of the entire seed stock plays a large role. It is most advantageous to disinfect the seeds early (with humidification). For this, at each farm responsible persons are appointed in advance to undergo training in the techniques of disinfection and in observing safety rules. The working order of the machines and their adjustment are checked.

When the grain is disinfected with suspensions of fungicides (TMTD [Tetramethylthiuram disulfide], granozan, hexatiurs and pentatiurs with a norm of 1.5 kg/ton) the seeds are moistened with 10 liters of water. For strong adherence of the preparation and improvement of the sanitary-hygienic conditions, stickers are added to the working fluid: sulfite-alcohol slops (0.7 kg/ton) or syrup (1 kg/ton). Seeds should be disinfected using series machines type Mobitoks and PS-10. Treating them by using other equipment does not ensure the proper quality and standard sanitary-hygienic work conditions.

Farms in Belgorod Oblast and Krasnodarskiy Kray are devoting a great deal of attention to early disinfecting of the seeds. As a result—the spread of smut diseases is minimal here. Unfortunately, the affliction of the barley plantings with powdery, and of the winter wheat—with solid smut at certain farms in Voronezh, Kursk and Tambov oblasts remains considerable (from 0.2 to 5 percent). There are instances of rejection of the seed plantings.

The problem of combating powdery smut of oats and millet remains critical. The percent of its afflicting plantings in both of our zones is still considerable. Consequently, there must be an improvement in disinfecting the seeds of these crops.

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SPRING SOWING CONCERNS IN ROSTOV OBLAST REVIEWED

Moscow SEL'SKAYA ZHIZN' in Russian 24 Mar 84 p 1

<u>/Article by Yu. Maksimenko</u>, Rostov Oblast: "Using All Elements of the Agroindustrial Complex"/

<u>/Text</u>/ The director of the well known Order of Lenin Tselinskiy Sovkhoz in the north Caucasus Ye. Goncharov replied to our question regarding the peculiarities of the present spring period in the following manner:

"Our sovkhoz has lived through fifty spring periods and they have all been different. The same is true this year. The conditions this year -- dry and windy with dust storms. The amount of moisture in the soil is less than usual. Such a situation dictates a need for the grain growers to employ a spring sowing technology. The chief aspect of such a technology -- a creative attitude towards working the land, optimum periods and high quality execution of the entire complex of operations."

The creative approach being employed by the virgin land workers with respect to their agricultural techniques has been developed on the basis of many years of experience. Regardless of how dry the spring, summer and autumn conditions may be, each year the sovkhoz obtains stable grain yields -- from 30 to 32 quintals per hectare. The leading crop -- winter wheat -- furnished an average of 42 quintals last year and even more on fallow land -- 45.5 quintals.

We held a discussion with the sovkhoz's chief agronomist V. Laptin. "Recently" he stated, "we completed the work of applying a root top dressing to the winter crops and we are sowing our early crops. The work is being carried out strictly according to plan using the flow line method."

The grain growers at the Tselinskiy Sovkhoz, taking into account the existing situation, plan to complete the sowing of the early crops and the repair work on the winter fields in just 50-60 working hours.

The complexes and sowing detachments have at their disposal 21 sowing, cultivator and other wide-cut units, transport equipment for hauling the seed, machines for providing technical assistance and mobile dining halls.

The agronomists of the various departments decide at the site just what the situation will be with each field. So as not to dry out the soil on those

tracts where the arable land was levelled off very well in the autumn, minimal cultivation of the soil is employed. Following row crops, the soil out on the fields is thoroughly tilled and levelled off. Stubble field sowing machines, which plant the seed better, are employed. The sown fields are necessarily packed using ring rollers.

We saw the experience accumulated by the experts at the Tselinskiy Sovkhoz being repeated on the fields of the kolkhozes imeni N.K. Krupskaya, imeni 1 Maya, imeni XXII Parts"yezda, the Stud Farm imeni Kirov and at other farms in Tselinskiy Rayon.

This spring the kolkhozes and sovkhozes in Rostov Oblast must sow early crops on an area of approximately 2 million hectares -- taking into account the resowing and undersowing of thinned out and perished winter crops and perennial grasses. The field work volume has increased twofold.

The rayon agroindustrial associations are undergoing a serious examination out on the spring fields. How are they performing under this year's complicated spring conditions?

The Tselinskiy RAPO $\underline{/r}$ ayon agroindustrial association/ has oriented all of the elements of the APK /agroindustrial complex/ towards strict observance of technological discipline and efficient interaction between one another.

For the sowing operations the kolkhozes and sovkhozes have prepared high quality seed for the more productive varieties. All of the spring crops are being planted on autumn plowed land. The specialists attached to the rayon agricultural admnistration are monitoring the situation to ensure observance of the accepted agricultural practices and they are furnishing the farms with assistance in introducing the collective contract into operations.

In behalf of this year's harvest, the mechanized detachments of farms and raysel'khozkhimiya have applied more than 1 million tons of farmyard manure and thousands of tons of chemical mineral fertilizers (3-4 times more than the figure for several years ago). A complete dosage of nutrition was applied to 5,000 hectares of clean fallow, accepted by Sel'khozkhimiya for complete agrochemical servicing.

"All stations for the use of chemical processes on the farms and the agrockhimcentr <u>/agricultural chemical center</u> of our association have a complete supply of fertilizers and toxic chemicals for the spring sowing period, for use in applying a top dressing and cultivating the sowings and also for growing row crops in accordance with an individual technology" stated the chairman of the raysel khozkhimiya V. Babin, "We have converted over to the use of progressive methods for utilizing fertilizers -- starter (simultaneously with sowing), root, foliar for winter wheats and inter-row. We are applying the fertilizers in accordance with the soil cartograms.

The Sal'skiy, Orlovskiy, Zernogradskiy, Oblivskiy and other RAPO's have created a single engineering-technical service for the kolkhozes and sovkhozes and Sel'khoztekhnika and they have transferred over to it all questions concerned with the use of the machine-tractor pool and its servicing and repair. The production-economic interrelationships of the farms with the enterprises

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of Sel'khozkhimiya and other APK partners are being strengthened. The sowing detachments and complexes on the farms have been provided with more complete support and their technical readiness has been raised considerably.

Here are some facts on the manner in which support for the spring requirements of the kolkhozes and sovkhozes has been reorganized by the rayon services of the oblast association of Sel'khoztekhnika. At all 45 of the exchange points, the nomenclature for exchangeable units and assemblies for the powerful K-700 and T-150K tractors. The number of technical servicing teams for the machinetractor pool at kolkhozes and sovkhozes has been increased to 746. In each rayon association of Sel'khoztekhnika and its branches, traveling brigades have been staffed and placed in operation for the purpose of correcting machine breakdowns directly in the field. The areas for the growing of row crops using industrial technologies are being increased on the farms. Assistance is being furnished by partners from Sel'khoztekhnika. They have prepared for the kolkhozes and sovkhozes thousands of sets of various attachments for the agricultural implements, hitches, roller-rippers, harrow-levellers and units for the simultaneous application of herbicides to the soil.

Field operations are in full swing in the Don River region. But are all of the elements of the spring complex performing in an efficient and organized manner. Unfortunately, the answer is no.

A number of agroindustrial associations have still not established a law calling for strict observance of technological and executive discipline. Compared to Tselinskiy, Yegorlykskiy, Milyutinskiy, Peschanokopskiy and other rayons, where the farms prepared in advance their seed for the spring crops using only 1st and 2d class seed, many kolkhozes and sovkhozes in Konstantinovskiy, Ust'-Donetskiy, Bokovskiy and Volgodonskiy rayons have such seed available only for satisfying approximately one half of their requirements and in some areas even less. Just as in the past, the grain growers have many complaints regarding the low quality of the corn and sunflower seed being prepared by enterprises of the oblast grain products administration.

Spring crops have been sown on approximately 1 million hectares on fields throughout the oblast. The decisive days of the grain and feed campaign are now at hand. As it accelerates, the spring sowing campaign will impose strict requirements upon each element of the agroindustrial complex.

IMPROVEMENTS NOTED IN ROSTOV OBLAST SOWING OPERATIONS

Moscow SOVETSKAYA ROSSIYA in Russian 8 Apr 84 p 1

/Article by G._Alekseyev, Rostov Oblast: "Harvest Will Indicate the Quality of the Sowing"/

 $\underline{/Excerpts/}$ It is easy to blame failures on the weather and it is considerably more difficult, in the face of nature's whims, to carry out all work on schedule and to obtain a high return from the crops.

On many farms, and particularly in those areas where contracts are being introduced into operations in a more energetic manner, the economiests have become frequent guests out on the fields. However the expenses are not being taken into account in all areas. And by no means are the consequences of certain administrative decisions being measured against the expected economic results in all areas. The desire to issue a report as rapidly as possible and to improve one's status in a summary often leads to mismanagement and to direct losses. It is maintained in some areas that a hectare will produce a return in the absence of proper care. This opinion, judging from all appearances, has prevailed in some areas. In the 3d Department at the Krasnovskiy Sovkhoz in Bagayevskiy Rayon, use was made of a Kirovets tractor ganged with three sowing machines for the resowing of winter crops and quite naturally it packed the soil to such a degree in some areas that it resembled more a car-racing track rather than arable land.

At the present time, during the warm days of the sowing period, the farms are suffering considerable losses caused by poor equipment repair work. The equipment was prepared in a poor manner in Verkhnedonskiy and Bokovskiy rayons: in addition to causing additional expenditures, delays and equipment idle time also result in failure to make use of the best sowing periods. Here the farms themselves are largely to blame and yet many serious claims can also be addressed against the Sel'khoztekhnika Association. For example, during the very peak of the sowing period a repaired tractor engine was returned to the Tsentral'nyy Sheep Sovkhoz. Initially the personnel were pleased with it. However, they were astonished by a closer examination of the engine: it was readily apparent that the bushings and crankshaft were damaged and that there were shavings inside the engine.

There were many such incidents and it was clearly apparent that reorientation of Sel'khoztekhnika towards the final results was being dragged out. Even its

leaders forget at times that relationships in a partnership must be honest. The leaders of the Pobeda Kolkhoz in Azovskiy Rayon, indignant over the failure of workers attached to Sel'khoztekhnika to display the proper degree of responsibility, imposed sanctions against the association. But to what purpose? The deputy chairman of Oblsel'khoztekhnika, N. Kharabadzhakhov, replied as follows: "We do not have to satisfy the complaint."

The sowing operations rapidly shifted from the south to the north. Having drawn the proper conclusions from the criticism addressed to them during the All-Union Conference on Problems of the Agroindustrial Complex, the workers in Rostov Oblast increased the rates and quality of their field operations. The early grain and pulse crops, taking into account the undersowing and resowing of winter perennial grasses, were planted on an area of one and a half million hectares. The harrowing of the winter crops and perennial grasses was completed on the entire area -- approximately 4 million hectares.

PREPARATIONS FOR SPRING FIELD WORK IN ROSTOV OBLAST

Moscow SEL'SKAYA ZHIZN' in Russian 9 Feb 84 p 2

/Interview with D.D. Angel'yev, director of the Gigant Sovkhoz and Hero of Socialist Labor and N.F. Trofimenko, chief technologist and honored agronomist of the RSFSR by Yu. Maksimenko; date and place not specified/

> <u>/Text</u>/ Even during the winter, the farmers at the country's well known Don region Gigant Sovkhoz display concern for their grain fields and for the new harvest. Our correspondent Yu. Maksimenko held a discussion with the director of the Gigant Sovkhoz and Hero of Socialist Labor D.D. Angel'yev and with a chief technologist and honored agronomist of the RSFSR N.F. Trofimenko concerning the plans for 1984 and the peculiarities of this present stage in the work of the grain growers.

 $\underline{/Question/}$ The grain obtained from the Gigant Sovkhoz has always been good. Tell me. Dmitriy Dmitriyevich, what will it be like this year?

/Answer/ There is no simple answer for this question. The collective at the sovkhoz, in carrying out the decisions handed down during the December (1983) Plenum of the CPSU Central Committee, is striving to consolidate the grain production level already achieved (during 3 years of the current five-year plan, the cropping power was raised by 2 quintals and amounted to an average of 32.5 quintals per hectare) and even to surpass it. This year the plans call for the production of not less than 80,000 tons of grain. The proportion of strong and valuable wheats, compared to the overall procurement volume, must be raised to 70 percent and we will strive not only to fulfill the plans for selling grain to the state prior to the end of the five-year plan but also to eliminate the lag that has already developed.

Our collective follows one particular law: each individual involved in the cultivation of the future harvest -- from a leader down to a machine operator -- must carry out his responsibilities in an irreproachable manner and to know how, using various means, to increase the production of grain and improve its quality.

/Question/ Using what means?

<u>/Answer</u>/ First of all, by raising the culture of farming, improving the structure of the area under crops, introducing more productive varieties and

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making the best use of fertilizers and equipment. A complex of agrotechnical measures is presently being carried out at the sovkhoz aimed at raising the productivity of the winter crops and increasing the yields of the spring crops. The agronomic service is striving to ensure the timely and high quality carrying out of operations on each field.

Coincidental with the advent of fine warm days, the machine operators moved their machine assemblies out onto the winter crop fields. They levelled off the fields plowed during the autumn for the spring crops and they carried out road improvements.

 $\underline{/Question/}$ The question now Nikolay Fedorovich is exactly how are the winter crops faring?

<u>/Answer</u>/ The winter crops were sown on 13,000 hectares, more than one half of which -- 7,000 hectares -- are in fine condition. The remaining hectares are in various stages of seedling development. Once again the dry autumn period exerted an adverse effect. This present winter is for the most part a warm one. The sovkhoz's agrochemical station is continuing its work and taking advantage of the fine weather for tending the crops. The lightly frozen soil was given a nitrogen fertilizer top dressing with the aid of aviation.

In all areas the crops were treated against infestation by mice-like rodents. Just as in previous years, the support point of the All-Union Institute of Plant Protection, which is located on the territory of the sovkhoz, provided us with a great amount of assistance in this regard. The preparation was applied to the crops from an aircraft and roadside areas and forest strips were treated manually. We are continuing to provide protection for the crops.

 $\underline{/Q}$ uestion/ What is being done to improve the quality of the grain?

<u>/Answer</u>/ From the crop structure, we have singled out those fields which must produce strong and valuable wheat and we have installed on them tablets containing the appropriate designations. An agrotechnical record has been prepared for each such field; it indicates the agricultural measures to be carried out during the best periods and the individuals responsible for performing the work.

The winter wheat varieties Donskaya Bezostaya, Partizanka and others have been sown at the sovkhoz for the purpose of obtaining strong and valuable grain. We are presently supplying the agrochemical point with complex fertilizers for the purpose of applying spring root top dressings and for foliar top dressings -- urea.

A reduction in the quality of the grain has always been associated with a violation of the wheat cultivation technology. This year we cannot tolerate a repetition of past mistakes or a lack of organization, with violations taking place in the agreements established between the farm and our partners. What do I have in mind? The time is approaching for dusting the crops to protect them against the harmful shield bug and yet agricultural aviation is not prepared -- it does not have sufficient gasolene. The same holds true with regard to applying foliar top dressings. The aviators should have been

prepared by now for carrying out this aviation chemical work on the crops during the best periods. No amount of sanctions or fines can compensate for a loss in grain quality.

<u>/Question</u>/ We are addressing your complaints to the leadership of the North Caucasus Civil Aviation Administration. Spring is almost at hand and how well prepared for it is the Gigant Sovkhoz?

<u>/Answer</u>/ Very little time remains. Everything will be decided by the personnel. They are working today with a thorough understanding of the new and great tasks. The seed for the spring grain crops has been cleaned and improved to 1st or 2d class. Spring barley occupies a considerable place in the grain crop structure. Seed has been laid away for varieties which are very productive under our conditions -- the barley varieties Zernogradskiy-73, Zernogradskiy-86 and Odesskiy-69, with a high protein content. Corn seed has also been procured. All of the spring crops will be sown with mineral fertilizers being applied to the soil simultaneously. This tested agricultural method furnishes a high increase in yield.

Depending upon the time of resumption of spring growth, we will introduce corrections into our computations: if spring arrives early, we will show a preference for spring barley, which thrives better when sown early, and if spring arrives late -- corn, since it utilizes summer precipitation more effectively.

Work plans for the spring sowing operations have been prepared in all of the departments. The chief requirement is to work out all details in advance -- for the sowing work, labor organization, payments and for providing services for the personnel in the field. There are no matters of secondary concern in sowing work; all aspects of this work are important. Exercises were conducted for middle echelon leaders on the technology to be employed for cultivating spring and winter crops and for obtaining strong wheats. Instruction was organized for the machine operators in the methods for ensuring highly effective use of equipment when carrying out work based upon a collective contract.

D. Angel'yev. Yes, a chief concern is that of providing fine training for the personnel. But importance is also attached to the status of the sovkhoz's power base. We are preparing it with emphasis being placed upon shorter periods and high quality field operations. All of the soil cultivation and sowing machines have been repaired and tractor pool repair operations are nearing completion. At one time the Gigant Sovkhoz purchased many powerful K-700 and T-150 type tractors. But life has shown that their use on such technological operations as pre-sowing cultivation of the soil and sowing lowers the quality of the work and, it follows, the yields. What is the solution? The structure of the machine-tractor pool must be changed. Let us start using the T-4 caterpillar drive tractor produced by the Altay Tractor Plant. They have proven their worth. This year the spring sowing is being carried out by our machine operators using this type of tractor.

N. Trofimenko. The minister of tractor and agricultural machine building A.A. Yezhevskiy has promised that the Kharkov workers will soon commence producing the T-150 tractor on a caterpillar undercarriage, something which has not yet been heard of nor seen. There is yet another question to be asked of this ministry. When will it finally organize the production and commence supplying the kolkhozes and sovkhozes with highly productive farmyard manure spreaders? The years pass and the fertility of soils decreases before our very eyes and we are unable, as truly required by both science and agricultural practice, to apply the required dosages of farmyard manure to the soil and thus return the nutrients previously taken from the land. All who participate in the agroindustrial complex -- from a field to a plant or from a sovkhoz or kolkhoz to a ministry -- are responsible for the harvest and its quality.

EFFORTS TO UPGRADE GRAIN PRODUCTION IN VOLGA REGION

Saratov STEPNIYE PROSTORY in Russian No 1, Jan 84 pp 5-6

 $\underline{/Text}/$ A chief element for economic development in the Volga region has been and continues to be grain production. Each year, two thirds of all of the principal sowing areas are set aside for grain crops and the effectiveness of the branch as a whole is largely dependent upon the return realized from these areas.

An analysis of the status of affairs in grain production throughout the region over the past two decades reveals that it is of an unstable nature. As a result, the plans have not been fulfilled. One reason for this -- failure to observe the crop rotation plan systems. Compared to the years of the Ninth Five-Year Plan when on the average 32 percent of the winter crops were grown following clean fallow and 41 percent following non-fallow predecessor crop arrangements, during the Tenth Five-Year Plan the fallow predecessor arrangements were reduced to 25 percent and the non-fallow increased to 42 percent. As a result, a deterioration took place in the predecessor crop arrangements, the soil was not prepared in a timely manner for the sowing work and the winter crop losses increased by almost twofold.

Over the past 2 years, a positive trend was observed towards improving the structure of the areas under crops. However the areas of clean fallow and especially perennial grasses do not conform to the recommended scientifically sound systems of farming.

Serious violations are occurring with regard to the carrying out of the principal soil cultivation work. Under the conditions found in the Volga region, 30-35 percent moisture accumulates following early or August plowing than following late plowing. At the same time, each year 40-45 percent of the soil is prepared late, particularly in Volgograd and Astrakhan oblasts and in the Kalmyk ASSR. The sowing of winter crops in freshly prepared soil is the chief cause of losses in these crops during the winter.

A comprehensive program for raising the fertility of soils has been developed at the kolkhozes and sovkhozes, but control over its implementation has been organized in a very weak manner. The volumes for applying organic fertilizers are being increased only slowly and in fact they even decreased in 1983. Compared to the annual average of 38,655,000 tons for applying such fertilizer

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during the Tenth Five-Year Plan, in 1981 -- 54,173,000, in 1982 -- 55,684,000 and in 1983 -- 41,769,000 tons. Extremely low amounts of organic fertilizer are being applied per hectare of arable land (see Table).

lasts and Autonomous Republics	1976-1980	1982	1983 (by 1 October)
Astrakhan	1.2	2.1	1.8
Volgograd	0.7	1.2	0.9
Kuybyshev	1.2	2.2	1.4
Penza	2.5	3.5	2.6
Saratov	0.9	1.8	1.3
Ulyanevsk	1.7	2.7	2.5
Kalmyk ASSR	1.1	1.8	1.4
Tatar ASSR	3.7	4.2	3.3
Total for the Volga region	1.8	2.3	1.7

Dynamics for Applications of Organic Fertilizers in Oblasts and Republics in the Volga Region, tons per hectare of arable land

The percentage of humus content in the soil increased but the desired results were not obtained.

The carrying out of the comprehensive program for raising the fertility of soils in the region will depend largely upon further improvements being achieved in protecting them against wind and water erosion. We have approximately 9 million hectares that are subject to wind and water erosion, or 36 percent of the arable land areas. However, anti-erosion measures are being carried out in negligible volumes and they do not always produce the desired effect. Anti-erosion work on slopes usually amounts to transverse plowing and even then not on all of the areas. A campaign aimed at combating the formation of ravines is carried out on a light scale.

In addition to increasing the grain production volumes, tremendous importance is also attached to the quality of the grain. Last year the kolkhozes and sovkhozes carried out a definite amount of work aimed at increasing the production of high quality wheats and yet the plans for procuring such wheat remained unfulfilled. Inspections have revealed that a majority of the farms engaged in cultivating strong and durum wheats are not meeting the basic requirements of the agricultural practices. There have been instances of individual farms and even entire rayons eliminating durum wheat sowings almost entirely, despite the fact that purchase plans for such wheat were established for them.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

DISEASE CONTROL MEASURES FOR GRAIN CROP SEED IN SARATOV OBLAST

Moscow ZASHCHITA RASTENIY in Russian No 3, Mar 84 p 25

Article by V.I. Tikhomolov, deputy chairman of the Saratov Sel'khozkhimiya Association/

 $\overline{/\mathrm{Text}}$ In recent years the kolkhozes and sovkhozes in Saratov Oblast have tolerated serious violations of the technology for the chemical disinfection of grain crop seed, as a result of which batches of grain having a raised smut content have been received from individual farms. This has forced us into devoting more serious attention to combating this disease. In 1983 the oblast executive committee approved a plan for the decontamination of seed for each rayon and schedules were prepared for the carrying out of this work on the farms. Approximately 1-2 months prior to the commencement of the disinfection work, repair work was carried out on the special machines used for this purpose. On farms which lacked these machines, grain-cleaning units were re-equipped for performing this work. Permanent teams were created consisting of 2-4 workers and a motor machinist, all of whom underwent medical inspections in advance and received instructions on safety measures associated with the decontamination of seed. The oblast plant protection station, jointly with the Agricultural Administration of the Saratov Oblast Executive Committee and the Scientific-Research Institute of Agriculture for the Southeast, prepared methodological instructions on the disinfection of seed, which were printed and circultated (1,500 copies) to all farms in the oblast. And the result: all of the grain crop seed was disinfected, including 70 percent ahead of schedule.

Specialists from the station were assigned to the rayons for exercising control over the treatment of the seed. Daily operational reporting was introduced: the problems concerned with disinfection of the seed are constantly discussed during board meetings of the oblast's agricultural administration. Efficient work was performed by workers assigned to a control-toxicological laboratory, who monitored the consumption norms for the preparations; the violations of the technology were eliminated in a timely manner.

Roughly 151,800 tons of winter crop seed have been disinfected in behalf of the 1984 harvest. In December the kolkhozes and sovkhozes commenced, ahead of schedule, the decontamination of seed for the spring sowing operations. Teams were composed, the members of which underwent medical examinations and were

issued protective equipment and special-purpose clothing. The disinfectants were brought in by special machines of the Sel'khozkhimiya associations, based upon a 1-2 day's supply for the farms. The specialists of the plant protection stations established strict control over the course of the seed disinfection work and the correct use of the machines. The manner in which this work is being carried out is discussed each week with the oblast's rayons over selective circuit communications. The plans call for 496,000 tons of seed, or 95 percent, to be disinfected in advance.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

ROSTOV OBLAST GRAIN PLANS--This year the farmers at the Gigant Sovkhoz have resolved to obtain no less than 32 quintals of grain from each hectare, to produce 80,000 tons and to deliver 51,000 tons to the state granaries. Relying upon the use of a scientifically sound farming system, the Gigant workers are establishing a strong foundation for the future harvest. Highly productive varieties of winter wheat, including Donskaya Bezostaya, Donskaya Semi-Dwarf and Tarasovskaya-29, have been planted on 13,000 hectares. Seventy thousand tons of organic material have been applied to the winter crop fields and more than 2,000 tons of mineral fertilizer were applied in conjunction with the principal plowing operation. The winter crops were sown with granulated superphosphate being placed in the rows simultaneously. /Text/ /Krasnodar SEL'SKOYE ZORI in Russian No 1, Jan 84 p 19/ /COPYRIGHT: "Sel'skiye Zori", 1984/ 7026

NEW WINTER BARLEY VARIETIES--In the north Caucasus, winter barley is distinguished by a high productivity. It surpasses spring barley in terms of cropping power, it utilizes fertilizer very well and it ripens 7-15 days earlier than winter wheat and spring barley. The cropping power of winter barley in Rostov Oblast is determined by its winter hardiness and resistance against lodging. New winter-hardy varieties have been developed at the Don Plant Breeding Center: Pallidum 198 and Gorizont. The results of tests carried out in connection with uncovering the optimum dosages and combinations of mineral fertilizers for these varieties are examined in this article /by Candidate of Agricultural Sciences A.A. Sokol and candidates of agricultural sciences A.A. Gritsenko, L.P. Bel'tyukov and A.S. Yereshko (Don Plant Breeding Center/ /Excerpt/ /Moscow KHIMIYA V SEL'SKOYE KHOZYAYSTVE No 12, Dec 83 p <u>9</u>/ /COPYRIGHT: Izdatel'stvo "Khimiya", "Khimiya v sel'skom khozyaystve", 198<u>3</u>/ 7026

SEED PREPARATION WORK--Rostov-na-Donu--Farms in the Don River region have commenced preparing their seed for spring grain and pulse crops. All of the grain cleaning mechanisms have been converted over to an extended work schedule. Many of the oblast's kolkhozes and sovkhozes have commenced drying and grading their sunflower seed and the cleaning of perennial and annual grass seed. <u>/Text</u>/ <u>/Moscow SOVETSKAYA ROSSIYA</u> in Russian 22 Oct 83 p <u>1</u>/ 7026

RICE PRODUCTION PREPARATIONS--Rostov-na-Donu, 6 Mar--The farmers on irrigated farms in the Don River region crowned their pre-October work period with overfulfillment of the annual plan for selling rice to the state. More than 57,000 tons of rice were delivered to the oblast's elevators. The rice growers are presently establishing the foundation for next year's harvest. They are preparing the soil and applying fertilizers. Seed for the more productive regionalized varieties has been selected and is being cleaned. /by Yu. Maksimenko/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 7 Nov 83 p 2/ 7026

EARLY RIPENING VARIETIES--Rostov-na-Donu--The collective at the Don Plant Breeding Center has developed new early ripening varieties for irrigated lands. Included among them is Veselovskaya-1 soybeans, recommended for regionalization in Rostov Oblast in 1984. It ripens within 100 days, or almost two and a half weeks earlier than the VNIIMK-9186 standard. Its highest yield is 33.9 quintals of seed per hectars. It surpasses the standard in terms of its protein and fat content. Two new rice varieties bred at the Don center --Primanychskiy and Sal'skiy -- are also considered to be early ripening. Their growing season -- from 104 to 110 days. Under production conditions at the Proletarskoye OPKh /experimental model farm/, Primanychskiy rice furnished 58.8 quintals of grain per hectare and at the Kharabali Strain Testing Station in Astrakhan Oblast a yield of 86 quintals was obtained. Primanychskiy rice has been included on the list of valuable varieties. The sowing of new rice varieties during early periods is making it possible to obtain fine and stable yields of high quality grain. _/by Yu. Maksimenko/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 9 Dec 83 p 3/ 7026

COLLECTIVE CONTRACTING FOR SOWING—Nal'chik—The Kabardino-Balkar farmers have taken a course toward maximal utilization of the advantages of collective contracting, and have begun sowing the early summer crops. The late spring introduced substantial readjustments into the schedule for field work. The farm workers of the steppe zone of the mountainous region, traditionally the ones who began the planting, moved out the units almost ten days later than usual. The machine operators of the Rodina, imeni Lenin and Zarya Kommunizma kolkhozes in Terskiy Rayon opened it. They count on, however, confining themselves to the traditional period due to the well-defined cooperation of all the services, using energy-saturated equipment and double shift organization of labor. [Text] [Ashkhabad TURKMENSKAYA ISKRA in Russian 25 Mar 84 p 1] 12151

LENTILS IN PENZA OBLAST—Penza (TASS) 1 [Mar]—The farmers of Penza Oblast have decided to raise lentils on their fields. Last year hundreds of quintals of grain were obtained on the farms. They were all left as planting material for expanding the areas sown to this crop. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 2 Mar 84 p 1] 12151 SUMMER CROP SEEDING IMPROVED-Kursk, 27 [Feb]--Preparation of seeds for the summer crops is being completed in the oblast. About two-thirds of them have been brought up to the first class of the sowing standard, which is almost twice as much as last year. In order to rid the millet and perennial grasses of contaminants that are difficult to separate, magnetic units are being used. Buckwheat is being passed through pneumatic binder decks. The rates of seed treatment are picking up and over half of them have already been treated with toxic chemicals. Seeds are being readied for planting in Belovskiy, Gorshechenskiy, Glushkovskiy, Korenevskiy and Sudzhanskiy rayons more successfully than in other rayons. [By A. Trubnikov] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 28 Feb 84 p 1] 12151

WINTER CROP PREFERENCE--Voigograd Oblast--The principal harvest was furnished by tracts of winter crops and aspecially in those areas where they were sown following well cultivated fallow and fertilizer was applied. Everywhere the grain on these fields in uniform and clean and yet alongside, on the same farm and tended by the same brigade, as though for comparison purposes, lowgrowing spring crops are choked out by wild oats and sowthistle. The association has drawn the conclusion: in behalf of this year's harvest, 1,700 hectares_of arable land will be planted in winter crops. /by V. Drobotov/ /Excerpt/ /Moscow SOVETSKAYA ROSSIYA in Russian 23 Aug 83 p 1/ 7026

WINTER CROP SOWING--Volgograd 22 Sep--The oblast's farmers are sowing their winter crops in a rapid manner and on a high agrotechnical level <u>--</u> more than 1,500 teams are operating here on a collective contract basis. <u>/Text/</u> /Moscow SEL'SKAYA ZHIZN' in Russian 23 Sep 83 p <u>1</u>/ 7026

VOLGOGRAD FIELD OPERATIONS--The workers in Volgograd Oblast carried out the harvesting of their sunflower, corn, potato, vegetable and melon crops in a more organized manner than in past years. A fine foundation has been established for this year's harvest. Winter crops have been sown on an area of 1.5 million hectares. The plowing of the autumn fields and the fallow land has been carried out. /Excerpt/ /Saratov STEPNYYE PROSTORY in Russian No 1, Jan 84 p 4/ [COPYRIGHT: "Strepnyye prostory" No 1, 1984] 7026

MOISTURE RETENTION WORK--Kuybyshev--The snow is being handled in a thrifty manner -- such was the task assigned to the oblast's field crop growers. Abundant snowfalls have made it possible to commence the mass retention of winter moisture. The work is being carried out by approximately 800 snowplows. On many farms this work has been organized on a double shift basis. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 15 Jan 84 p 1/ 7026

STRAWBERRIES IN OCTOBER--Ulyanovsk--Even old-timers in the Central Volga region cannot recall such an event happening in the past. And there is reason to be surprised: in the neighboring forests of Ulyanovsk, strawberries have ripened for the second time during the one season. For example, a walk under the canopy of the October forest produced a pleasant surprise for pensioner Ye. Khromovaya: she gathered enough berries to provide a fine treat for her grandson and also to place in storage some cans of jam. The specialists have noted that there have been instances in the past of orchard and berry crops ripening in the autumn in the Volga region. But only ripening! Such late figts of the summer appeared in the Ulyanovsk_forests_as a result of an especially warm autumn period. /by Milov/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 30 Oct 83 p 4/ 7026

SCWING PLANS REVIEWED--Taking into account the peculiarities of the past winter, marked by a small amount of snow, and the early spring, the kolkhozes and sovkhozes in Ulyanovsk Oblast are examining the working plans for the spring sowing and are following a course aimed at employing a moisture retention technology while reducing the schedules for the field operations. <u>/Excerpt/</u> <u>/Moscow SEL'SKAYA ZHIZN' in Russian 18 Mar 84 p 17 7026</u>

AERIAL TOP DRESSING--Ulyanovsk--The aviators in the central Volga region have commenced their spring fartility work. Using airplanes, the work of applying mineral fartilizer top dressings to the winter crops on a mass scale has commenced on the fields in Ulyanovsk Oblast. <u>/Text</u>/ <u>Moscow TRUD</u> in Russian 23 Mar 84 p $\frac{1}{24}$ 7026

SPRING FIELDS REQUIRE MOISTURE--Yashalta (Kalmyk ASSR)--A warm period has arrived on the republic's fields. The machine operators in Yashaltinskiy Rayon required only 3 days for plowing in the moisture on the spring fields during the best agrotecynical periods and for carrying out an undersowing on the principal winter crop tracts. [Text] [Moscow TRUD in Russian 17 Mar 84 p 1] 7026

SIMULTANEOUS FERTILIZER APPLICATION--Gorodovikovsk (Kalmyk ASSR)--The farmers in Gorodovikovskiy and Yashaltinskiy rayons, who have completed placing their seed for barley, peas and other early crops in the soil, with a simultaneous application of mineral fertilizer, are establishing a reliable foundation for the harvest. /Text/ /Moscow TRUD in Russian 22 Mar 84 p $\underline{1}$ / 7026

WINTER GRAIN FIELDS EXPANDED--This year the Saratov kolkhozes and sovkhozes have expanded their sowings of winter grain crops by almost twofold. Experience has shown that the winter crop fields are more productive and that the winter grain crops ripen 2 weeks earlier than the spring grain crops. <u>/Text/</u> <u>/Moscow TRUD in Russian 3 Sep 83 p 1</u>/ 7026

OBJECT OF SPECIAL PRIDE--The irrigated fields are an object of special pride for the Saratov workers. In terms of size, they have no equal in all of Russia. This year they have reached 500,000 hectares. This is fully adequate for completely satisfying the requirements of public animal husbandry for feed and also for setting aside a portion of the areas for the production of commodity grain. /Excerpt/ /Saratov STEPNYYE PROSTORY in Russian No 1, Jan 84 p 4/ [COPYRIGHT: "Strepnyye prostory" No 1 1984] 7026

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LIVES TOCK

LATVIAN CP REVIEWS PROBLEMS OF REPUBLIC LIVESTOCK SECTOR

Riga SOVETSKAYA LATVIYA in Russian 19 Jan 84 p 1

[Article: "In the Central Committee of the Latvian Communist Party"]

[Text] The Latvian Communist Party Central Committee Buro, at its regular meeting, examined the problem of operations for wintering cattle at the kolkhozes and sovkhozes in the republic. Deputy Chairman of the Latvian SSR Council of Ministers K.A. Shpogis gave a report. In the course of discussing the topic it was noted that the rayon committees of the Latvian Communist Party, the rayispolkoms, RAPO [Rayon Agroindustrial Association], primary party organizations, and directors and specialists of the farms, enterprises and organizations in the agro-industrial complex had done specific organizational and political work to increase production and sale to the state of the livestock-breeding output in October-December 1983. The Party Raykoms are working purposefully to intensify Party influence in this sector. About 200 Komsomol members have been drawn into livestock-breeding. Some 26 new Party and Party-Komsomol groups have been formed at the livestock-breeding complexes and farms. Monitoring the activity of the administration through the commissions set up everywhere has been intensified by Party organizations. Socialist competition directed toward increasing the production and improving the quality of the livestock-breeding output has been organized in the republic, rayons and on the farms.

For general livestock-breeding this winter, 12.9 quintals apiece of fodder units have been prepared per conventional head of cattle, which is 16 percent more than in 1982. The quality of the fodder has improved considerably.

The level of zootechnic and veterinary work has risen, as the result of which cattle murrain has diminished and sterility has dropped. During three months of wintering, throughout the republic 8500 more calves were gained than in the corresponding period last year. The milk yield and the average daily weight gain of cattle being fattened have increased, and the realized weight of cattle sold to the state has risen.

The organizational and mass-political work carried out made it possible, from 1 October to 31 December 1983 as compared with the same period in the preceding year, to increase the production of meat by 7 percent, of milk-by 5 percent, of eggs--by 14 percent and to increase accordingly the sale of these types of products to the state. At the same time, it was noted that the work done by the ministries and departments of the agroindustrial complex of the republic, by the Party raykoms, rayispolkoms, RAPO, primary party organizations and ispolkoms of the rural Soviets does not yet in full measure meet today's requirements. A number of Party raykoms, ministries and departments of the agroindustrial complex and primary Party organizations do not show the proper exactingness toward the directors and specialists of the kolkhozes and sovkhozes for more complete utilization of the reserves and potentials for organized wintering of the cattle and increasing the production of livestock breeding output. In some of the republic's rayons the fodder is not used economically and differentiated feeding of the cattle is not organized. In the balance of coarse fodder, along with hay, straw constitutes a large relative proportion. However, the proper significance is not assigned to its efficient and effective use. The necessary measures, directed toward raising its feed values are not taken everywhere. The tasks for treating straw are being poorly fulfilled at farms in Liyepayskiy, Tukumskiy, Saldusskiy and Rizhskiy rayons.

In some rayons insufficient work is being done to supplement the fodder resources in the winter period. Little attention is paid to procuring coniferous fodder in farms of Talsinskiy, Tukumskiy, Ogrskiy, Madonskiy and a number of other rayons in the republic. Spoilage and losses of fodder are permitted. The procedure for maintaining and feeding the livestock is upset.

Despite a certain reduction in murrain among the livestock as compared with preceding wintering, in many rayons, including Dobel'skiy, Kuldigskiy, Madonskiy, Rizhskiy and Bauskiy, it remains at a high level.

The insufficient attention paid to problems of wintering cattle on the part of individual Party raykoms, rayispolkoms and rayon agroindustrial associations has led to an unjustified reduction of production and sale to the State of livestock breeding products in the fourth quarter of last year. Cattle and poultry production in Rizhskiy, Saldusskiy, Aluksnenskiy and Kraslavskiy rayons diminished.

As compared with the corresponding period last year, the volume of cattle and poultry purchases decreased at farms in Saldusskiy, Kraslavskiy, Rizhskiy and Aluksnenskiy rayons. Egg purchases were reduced at farms of Tsesisskiy, Gulbenskiy, Kuldigskiy and Rezeknenskiy rayons.

The potentials for increasing production of cattle and milk are not fully utilized at the livestock breeding complexes of the republic's kolkhozes and sovkhozes. At a considerable number of them input of fodder and habor are still high, and the livestock productivity is low.

The Latvian SSR Ministry of Agriculture and its scientific-research institutes and the Latvian SSR Ministry of the Fruit and Vegetable Industry and the republic's committees for the Trade Union of Agricultural workers are inadequately organizing work to introduce into livestock breeding new advanced forms of organization and wages. The Party rayon committees, the Latvian SSR ministries of Agriculture and the Fruit and Vegetable Industry, the rayispolkoms and the rayon agroindustrial associations have not paid the proper attention to problems of training personnel from mass occupations for livestock breeding. The necessary measures directed toward unconditional fulfillment of the assignments for training personnel outlined by the 9th Plenum of the Latvian Communist Party Central Committee were not adopted at the sites.

The Latvian SSR Ministry of Construction, Latvian Association of Kolkhoz Construction and a number of rayon and municipal Party committees and ispolkhoms of the rayon and municipal Soviets have not ensured fulfillment of the resolutions of the 9th Plenum of the Latvian Communist Party Central Committee on problems of constructing shops for preparation of fodder mixtures for cattle.

For the problem discussed, a resolution was adopted which binds the Latvian SSR Ministry of Agriculture, Ministry of the Fruit and Vegetable Industry of the Republic and Goskomsel'khoztekhnik [State Committee for Agricultural Procedures] and the Party raykoms and gorkoms, the municipal (cities under republic jurisdiction) and rayon ispolkoms, Komsomol raykoms, rayon agroindustrial associations, primary Party, Komsomol and trade union organizations serving agriculture to eliminate the existing shortcomings and adopt additional measures for a further increase in the livestock breeding production volumes. Smooth monthly sale of products to the State is to be ensured on this basis.

It is proposed that the Latvian SSR Ministry of Agriculture and Ministry of the Fruit and Vegetable Industry, the rayon agroindustrial associations and the directors of the kolkhozes and sovkhozes concentrate the efforts of the livestock breeding collectives on prudent and efficient use of fodders, ensuring the correct feeding for the livestock, fulfilling all the zooveterinary requirements, introducing new technology, advanced work experience, progressive forms of organization, wages and work incentive, and on this basis achieve an increase in cattle and poultry productivity. They should adopt additional measures to improve the organization of preparing fodders for feeding, particularly straw, to ensure an increase in procurement of coniferous fodder and fuller utilization of the food, meat and dairy industry and public catering enterprises.

The Latvian SSR Ministry of Agriculture, Ministry of the Fruit and Vegetable Industry and Ministry of Internal Affairs, as stated in the resolution, must intensify work to ensure the total preservation of fodders against spoilage and predators and ensure the preservation of the cattle and poultry population.

The Latvian SSR Ministry of Agriculture and Ministry of the Fruit and Vegetable Industry, the Party rayon committees, rayispolkoms, rayon trade union committees and the primary Party organizations of the kolkhozes and sovkhozes must raise the level of organizational work on preparing personnel in mass occupations for livestock breeding. They must ensure unconditional fulfillment of the assignments for training livestock breeding personnel established by the 9th Plenum of the Latvian Communist Party Central Committee. More attention must be paid to problems of Party influence on livestock breeding. Rearing work among the farm workers must be directed toward strengthening labor discipline and increasing labor productivity.

The Latvian SSR ministries of Agriculture and the Fruit and Vegetable Industry, the Party rayon committees, the rayispolkoms, the Komsomol raykoms, the trade union raykoms and the primary Party organizations of the kolkhozes and the sovkhozes must ensure activation of work to introduce collective contracting in livestock breeding. They must increase the effectiveness of socialist competition and make broader use of forms of moral and material incentive for leading workers.

The Latvian SSR Goskomsel'khoztekhnika has been commissioned to continue work on improving technical service for the machines, mechanisms and equipment on livestock breeding farms, particular attention having been paid to the quality and shorter periods for fulfilling the work. The supply to the kolkhozes and sovkhozes of special work clothing for the livestock breeding workers must be improved.

The Latvian SSR Ministry of Procurement should ensure that the output of combined fodder is strictly according to the formulas and assortment. It must organize production of combined fodder at the sites, maximally approximated to their consumption. Improvement of farm provision with combined fodder by virtue of smooth supply of it throughout the rayons, kolkhozes and sovkhozes of the republic must be improved. The Latvian SSR Ministry of the Meat and Dairy Industry must ensure a smooth monthly supply to the farms of standardized skim milk in established amounts.

Gosplan, the Latvian SSR Ministry of Agriculture, the republic's Ministry of Construction and Latvkolkhozstroy have been commissioned to present to the Latvian SSR Council of Ministers before 1 March 1984 the approved proposals on constructing and putting into operation in 1984 some 70 shops for preparation of feed for cattle, grouped by rayons and farms, and with the directions of the contracting organizations carrying out the construction. The lagging behind permitted in construction of feed shops during 1983 must be made up for, and fulfillment of the plan for construction of these shops in 1984-1985 be ensured.

Latvian SSR Gosplan and Latvian SSR Gossnab have been commissioned to adopt the necessary measures for releasing to the republic's Ministry of Agriculture, for the needs of livestock breeding an additional quantity of building materials (cement, brick, roofing shingle, metal, pipes, etc.) for operational needs.

The Latvian Communist Party Central Committee Buro also examined the problem of the work of the Latvian SSR Ministry of the Fruit and Vegetable Industry. A report was heard from the republic's Minister of the Fruit and Vegetable Industry V. Ya. Kurpniyeks.

In the resolutions adopted on this problem, it was proposed that the Ministry of the Fruit and Vegetable Industry of the republic eliminate the major shortcomings existing in its work and adopt measures to improve the production organization, procurements, processing, storage and sale of fruit and vegetable products and potatoes. Specific measures were outlined to reinforce the material and technical base of this ministry in 1984-1990.

A number of other problems were examined at the meeting of the Latvian Communist Party Central Committee Buro.

12151 CSO: 1824/325 LIVESTOCK

UDC 636.081.115

NEW STATUTE ON LIVESTOCK PROCUREMENT CONTRACTS EXPLAINED

MOSCOW MYASNAYA INDUSTRIYA SSSR in Russian No 2, Feb 84 pp 17-21

/Article by A.M. Kharchenko, USSR Ministry of the Meat and Dairy Industry: "New Development in Contractual Agreements"/

<u>/Text</u>/ A new statute has been approved on the system for drawing up and carrying out contractual agreements for agricultural products and a standard contractual agreement for livestock, poultry and rabbits which, during the course of state procurements of agricultural animals, regulate the relationships between the procurement organizations, enterprises of the meat industry, kolkhozes, sovkhozes and other state farms.

The new documents differ substantially from earlier ones. The obligations have been expanded considerably and the responsibility of the procurement specialists for carrying out the contractual obligations, organizing the acceptance of raw materials, ensuring that they are evaluated correctly and maintaining accounts with the farms has been raised.

The system established by the statute for the drawing up and carrying out of contractual agreements for agricultural products covers the state purchases of all types of livestock, poultry and rabbits sold by the farms, in both the volumes called for in the sales plans and also in excess of these volumes. In addition, it covers purchases of these products from farms which do not have plans for selling such products to the state.

The state purchases of livestock, poultry and rabbits, in accordance with the statute, are carried out on the farms based upon contractual agreements which are concluded in conformity with the plans for purchases and the development of agricultural production. A contractual agreement is the principal document for defining the rights and obligations of the parties involved. In the drawing up and carrying out of an agreement, each of the parties involved must observe the cost accounting interests of the other party, carry out his own obligations in the most economic manner, undertake the measures required to prevent or diminish losses arising as a result of the careless carrying out of obligations, inform the other party concerning these measures in a timely manner and also furnish the latter with assistance in carrying out its obligations.

An agreement is considered to have been carried out only after both sides have fulfilled all obligations undertaken. The non-fulfillment of contractual obligations is a violation of state discipline and involves property responsibility on the part of the procurement specialist or farm that committed the violation. The sanctions called for in existing legislation or in an agreement, for having violated contractual obligations, are applied on a mandatory basis and in the absence of mutual allowances.

In accordance with established legislation, the leaders and other officials of farms and also the procurement specialists are held responsible for the nonfulfiliment of their obligations. In particular, persons guilty of having caused damage as a result of non-fulfiliment or improper execution of their obligations are held materially responsible in the manner and to the extent established in labor legislation or the Model Regulations for a Kolkhoz.

The new statute on the system for drawing up and carrying out contractual agreements imposes responsibility on the procurement specialists for:

...organizing purchases and ensuring the uninterrupted acceptance of all products presented by the farms;

...uncovering commodity resources and ensuring the purchasing of above-plan products on the farms;

... the timely drawing up of contractual agreements with the farms and the carrying out of contractual obligations;

...maximum development and strengthening of direct relationships between the industrial enterprises and farms and ensuring acceptance of the products directly on the farm in conformity with the established tasks and shipments according to an agreed upon schedule using their own specialized transport or common carriers;

...ensuring the correct determination of weight and quality in the products purchased and the timely accounting for these products;

...ensuring proper preservation for the products procured and reducing product losses during procurements, transport, storage and primary processing.

The farms bear responsibility for fulfillment of the plans and contractual obligations for selling products of the required quality to the state in the volumes planned and within the established periods; the timely preparation of the products for delivery-acceptance and their shipment in accordance with agreed upon schedules, upon the condition that the products are turned over directly on the farms; the correct preparation of the accompanying documentation and the observance of all requirements having to do with delivery of the products (branding of livestock and so forth).

The appropriate agroindustrial associations, jointly with the state inspections for procurements and the quality of agricultural products, the local agricultural organs and procurement organizations, are developing and presenting for approval in the established manner recommendations for assigning the farms to procurement specialists for the drawing up of contractual agreements and for the delivery and acceptance of products. In those instances where the procurement organization and the farm are located in different union republics, the decision with regard to assigning the farm to a procurement specialist is made by USSR Minzag /Ministry of Procurements/ and USSR Minsel'khoz /Ministry of Agriculture/, by agreement with the union republic councils of ministers and also the interested ministries and departments.

The procurement specialists and the farms are obligated to draw up a contractual agraement for an appropriate period, within a 3 month period following approval of the state plan for the economic and social development of the USSR. The agreements are concluded directly on the farms, to which the procurement organization is obligated to send its representative no later than 15 days following the receipt of the approved plan for state purchases of livestock and poultry and the dacision on assigning the farm to a procurement specialist. The agreement signed by the two parties involved is recorded in the rayon's state inspaction for procurements and the quality of the agricultural products. which ensures that the agreements concluded conform to the state purchase plans assigned to the farms. The representatives of the inspection report the results of an inspection to the council of the rayon agroindustrial association. Agreements which conflict with legislative and other normative documents, the approved plans for state purchases of livestock and poultry and the statute on the system for drawing up and carrying out contractual agreements for agricultural products are considered to be invalid either completely or in a definite portion.

A contractual agreement is prepared in four copies, with one going to the farm, a second to the purchaser, the third to the rayon APO <u>/agroindustrial</u> association and the fourth to the rayon's inspection for procurements and the quality of the agricultural products.

The purchaser is obligated to add to the agreement those standards, technical conditions and rules (instructions) which control the system of livestock, poultry and rabbit purchases and other normative documents, assuming that they were not presented earlier to the farm. No later than 1 month prior to the commencement of the procurements, the farm must be acquainted with the changes introduced into these documents and it must also be informed regarding further changes in the legislation and normative documents concerning livestock, poultry and rabbit procurements. In addition, in response to a request from the farms, instructions and consultations must be provided for the workers on those matters concerned with the use of the mentioned documents.

A unilateral refusal to carry out an agreement or to accept a change in its conditions will not be tolerated, with the exception of those cases provided for in the legislation. The dissolution of an agreement or a change in its conditions is permissible in those instances where it does not conflict with the fulfillment of the established state plans for purchasing livestock and poultry. That party which receives a proposal to dissolve an agreement or to change a condition in it is obligated to furnish a response no later than 10 days following receipt of the proposal. Should the sides fail to reach agreement regarding dissolution of the agreement or a change in its conditions, the controversial problems remaining between them are resolved in the established manner by the representatives of a court or through arbitration. Contractual agreements for livestock, poultry and rabbits are drawn up for 5 years (with a breakdown by years) and for 1 year. In agreements concluded for 1 year, the volume of purchases is defined more precisely based upon indicators approved in the annual plans for the economic and social development of the farms.

The following information is provided in a contractual agreement for livestock, poultry and rabbits:

...the overall volume of products to be sold by a farm to the state (including the limit for public cataring, sales to sovkhoz manual and office workers, the sale of livestock to Plemzhivob"yedineniye and livestock deliveries to biofactories and institutes) and the volume of sales directly to the purchaser, with a breakdown by types of animals and poultry. The livestock volume is shown with a distribution by monthly sales periods, number of head and weight;

... of the overall volume of cattle sales, the young stock of a raised weight and also swine of the 1st and 2d categories are singled out; in addition, the obligations of the farms with regard to the sale of cattle of high and average nutritional value (percent of overall volume) are shown;

... the volume of products accepted by the purchaser directly on the farm, with the shipments carried out using his own transport or a common carrier;

... the obligation of the purchaser with regard to the timely acceptance of products and payments in accordance with the established prices;

... the overall total amount of the agreement, the system of accounts and the payment, postal and shipping requisitions of the farm and purchaser;

... the mutual property responsibility of the sides for non-fulfillment or improper execution of the contractual obligations and other conditions which the sides consider necessary for inclusion in the agreement.

The quantity of products is pointed out in the agreement in conformity with the plan for state purchases and the type of animals and poultry to be delivered is established by the sides. During the course of carrying out the agreement, the sides have the right, by mutual agreement, to change the assortment of the products being purchased, provided the rayon APO and the state inspection for the rayon for purchases and the quality of the agricultural products are informed regarding the change and the appropriate changes are introduced into the agreement.

The purchaser is obligated to accept all of the products presented by the farm over and above the volumes called for in the agreement, based upon the same conditions set forth in the agreement. The farm is obligated to notify the purchaser in a timely manner regarding the quantities and schedules for delivering products in excess of the volumes called for in the agreement and to coordinate the calendar (dåily) schedule for turning over the products.

The livestock, poultry and rabbits sold to the state must be accompanied by documents of the established form, with an acceptance-delivery document being prepared upon their acceptance directly at the farms. The quality of the raw

materials is determined in conformity with the standards and technical conditions and also the requirements set forth in the rules for veterinary and sanitary supervision. The schedules set forth in an agreement for the sale of livestock and poultry are established by the sides taking into account the production conditions and the quarterly plans for state purchases, approved by the union republic councils of ministers.

The loading of the products on transport vehicles for shipment to the procurement points and the unloading of returned packaging materials (in the case of poultry and rabbit deliveries) are carried out using the forces and resources of the farm and the unloading of the products and loading of the packaging materials for shipment to the farm at the delivery point for the products -using the forces and resources of the procurement organization. If one of the sides carries out the loading and unloading work assigned to the other side, then the latter reimburses the former for having performed the work, in accordance with the provailing rates for the particular union republic.

The delivery of products to a purchaser or the acceptance of products directly on a farm are carried out in accordance with schedules agreed upon by the sides, with the schedules being an inalienable part of a contractual agreement. The system for preparing, coordinating and changing the schedules is set forth in the Instructions for Carrying Out State Purchases (delivery and acceptance) of Livestock, Poultry and Rabbits. During the course of carrying out an agreement, the sides, by mutual agreement, may change the schedule and also the delivery point for the products. By agreement with the purchaser, the farm may deliver the livestock, poultry and rabbits ahead of schedule, with credit being extended for the number subject to be delivered during the next delivery period in accordance with the contractual agreement.

The date on which a farm fulfills its obligations as set forth in a contractual agreement is the date on which the receiving-delivery document for the delivery of products at a farm or at the receiving points of the purchaser is signed and the date on which the purchaser pays for the livestock, poultry or rabbits to the farm -- the date on which the bank's stamp is placed upon the accounting document.

The purchaser is obligated to accept the products delivered to the receiving point, he must not tolerate any above-normal idle time in the use of the transport equipment and he must determine correctly the quality and quantity of the products. The period for accepting livestock, poultry and rabbits is established by the Instructions for the Carrying Out of State Purchases (delivery-acceptance) of Livestock, Poultry and Rabbits. The purchaser and the farm are obligated to note on the marketing-transport invoice the time of arrival of the transport vehicles and the completion of the loading (unloading) of the livestock and poultry.

Controversial problems which arise between the farm and the purchaser in connection with evaluating the quality and quantity of the products purchased are resolved by the rayon's state inspection for purchases and the quality of the agricultural products; the results of the decisions reached are reported to the council of the rayon APO. If a purchaser refuses to accept the poultry, a farm can sell them to state or cooperative organizations or on the market in its own oblast, kray or republic and also beyond their limits, at prices mutually agreed upon by the parties involved and with the sales being credited toward fulfillment of the plan for selling products to the state (with the exception of poultry sold on the market). In the process, the purchaser is not released from the property responsibility stipulated in the contractual agreement for having rejected acceptance of the products.

The number of livestock and poultry not delivered by a farm within the period established in the agreement must be delivered during a period mutually agreed upon by the parties involved and credited to the period in which they are actually delivered.

Animals accepted from farms are accounted for on the basis of existing state purchase prices, with use being made of the established bonuses and price reductions (bonuses for young cattle stock of raised weights, bonuses added on to the purchase prices for low profitability and unprofitable farms and so forth). When the products are delivered by a farm's transport vehicles, the purchaser reimburses the latter for the transport expenses (in accordance with the actual weight, including the packaging materials) and for the unloading work, in accordance with the norms and rates in effect at the farm's location for the particular type of transport employed for carrying out the delivery. The transport expenses are reimbursed for the distance from the farm's shipment point for the products (department, animal husbandry farm, distant pasture and so forth) to the receiving point. The purchaser reimburses the farms for costs in accepting the livestock, poultry and rabbits from kolkhoz members and other citizens and for the expenses required for delivering them to the procurement points, in accordance with the system and amounts established by the union republic councils of ministers.

The expenses for delivering products by common carrier motor transport and tractors with trailers are paid for by the purchaser directly to the transport organization, in accordance with the effective rates in the union republic for shipping freight using this type of transport. The expenses for carrying out deliveries by railroad, water or mixed transport are reimbursed according to the effective rates for the transporting of freight by the particular types of transport, including taxes and other expenses.

The accounts with farms for livestock, poultry and rabbits accepted must be completed no later than the day following their acceptance and if the purchaser is located outside the area serviced by his bank institute, then no later than 5 days following acceptance. The accounts are carried out by transferring the payment authorizations for the cost of the products delivered by the farm over to its current account.

For the non-fulfillment or improper fulfillment of obligations stipulated in the contractual agreement, the following property responsibility is established: for failure to deliver the quarterly volume of livestock, poultry and rabbits, the farm pays the purchaser a fine amounting to 3 percent of the value of the products not delivered, with the value of products not delivered during the previous quarter being excluded. The total amount of the fine is determined based upon the average actual price during the previous quarter, without taking into account the payment of a 50 percent bonus for the sale of livestock, poultry and rabbits to the state over and above the average level achieved during the Tenth Five-Year Plan, bonuses added on to the purchase prices established for low profitability and unprofitable farms and other bonuses. In accordance with established procedures, the farm is released from responsibility for the non-fulfillment of contractual obligations in those instances where such non-fulfillment was caused by natural calamities or other unfavorable conditions or because of fault on the part of the purchaser.

For refusing to accept the livestock, poultry or rabbits presented by a farm for delivery in accordance with a mutually agreed upon deliver-acceptance schedule, the purchaser pays the farm a fine in the amount of 3 percent of the value of the products which were not accepted and it also furnishes reimbursement for the delivery of the animals at both ends and also for farm losses resulting from decreases in the animal weights, a reduction in the quality of the products, transport equipment idle time while waiting for the products to be accepted and so forth. In this instance, the purchaser must notify the farm in writing regarding his refusal to accept the products (a note must be added to the commodity-transport invoice, a telegram can be sent and so forth). If the purchaser declines to send written notification, the farm is authorized to invite a representative of the rayon state inspection for procurements and the quality of agricultural products or the APO /agroindustrial association / and with his participation to compose a document concerning the purchaser's refusal to accept the products, with information being provided as to the quantity and quality of the products.

For non-fulfillment of its contractual obligations with regard to accepting the livestock and poultry directly on the farm and their delivery to the receiving point by the farm's transport equipment, the purchaser pays a fine in the amount of 3 percent of the value of these products and the farm's transport expenses in accordance with unified rates for shipping the freight using the appropriate type of transport. If the farm did not prepare the livestock, poultry and rabbits for delivery-accemptance at the site and did not notify the purchaser in this regard, it is obligated to reimburse the latter for the transport expenses at both ends in accordance with the unified rates. for the transporting of freight.

For the late payment for products accepted and also for late reimbursement for transport expenses when the livestock, poultry and rabbit deliveries are carried out using transport equipment of the farm, the purchaser pays the latter a fine amounting to 2 percent and in the case of a payment that is late by more than 10 days -- 3 percent of the amount that was late in being paid. For an unjustified complete or partial refusal to accept a payment demand and also for declining to make payment in connection with other accounting forms, the purchaser pays the farm the amount that was underpaid and a fine amounting to 3 percent of this amount. In the case of an incorrect determination of the quantity or quality or an incorrect payment for the products, the purchaser pays the farm the amount of fines does not release the parties involved from having to carry out their contractual obligations.

In the case of equipment idle time (equipment which delivered products in accordance with the agreed upon schedule) over and above the established time

norms for the acceptance and unloading of products, including idle time, associated with waiting for the products to be weighed and a determination made as to the quality of the cattle, poultry and rabbits (more than 2 hours from the moment of arrival, noted in the commodity-transport invoice), the purchaser bears responsibility in accordance with the unified rates for the transporting of freight by the appropriate type of transport. The farm bears similar responsibility for the idle time of transport equipment of the purchaser, over and above the established time norms for the loading of livestock, poultry and rabbits, if the agreement states that they are to be delivered directly on the farm.

If a farm does not institute action against a purchaser in order to obtain payment for products sold, then such action can be instituted in the established manner by the rayon agroindustrial association in the farm's interests. In the case of incorrect accounts, the purchaser, in addition to the money recovered from him in favor of the farm, pays a fine in the amount of 20 percent of that amount into the union budget revenue. For the late presentation or sending to a bank of the consolidated monetary assignments, for the transfer of money to a farm account, the purchaser pays the bank a fine in the amount of 0.1 percent of the total amount of the delayed payments for each day of delay.

The new statute on the system for concluding and carrying out contractual agreements for agricultural products and the standard agreement for livestock, poultry and rabbits are imposing raised requirements with regard to the organization of efficient work by enterprises of the meat industry in connection with the procurement, transporting and processing of animal husbandry products. The leaders and appropriate workers at enterprises must study the new documents, examine once again all of the "bottlenecks" and shortcomings in the organization of procurements, the acceptance of products, pre-slaughtering maintenance and in the processing of the livestock and undertake decisive measures aimed at correcting them.

At the present time, at the beginning of the year, importance is attached to carrying out a well organized and timely campaign aimed at concluding contractual agreements with the kolkhozes, sovkhozes and other farms. Instructions must be provided for those enterprise specialists carrying out such work. In addition to possessing a good knowledge of the system for concluding such agreements, they must also be familiar with the status and also the plans for developing animal husbandry on each farm. This will make it possible, during the course of concluding an agreement, to take into account all of the reserves and opportunities for raising marketability and increasing the volume of products sold to the state.

A permanent record should be maintained on the fulfillment of contractual agreements, the required contractual-complaint work should be carried out in connection with these contracts and the local APO councils should be supplied with information on a regular basis on the course of contract fulfillment. Special attention must be given to the work of controlling observation of the correctness and timeliness of the accounts maintained with suppliers. When necessary, the bookkeeping system should be reinforced through the addition of skilled personnel, the correctness of the accounts should be coordinated with the farms on a regular basis and the violations which arise in the maintenance of the accounts should be analyzed and eliminated. In developing and strengthening the direct relationships with farms, the workers attached to industry must perform more energetic and purposeful work aimed at improving the organization of procurements and the acceptance, transporting and processing of the livestock and poultry.

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7026 CSO: 1824/345

AGRO-ECONOMICS AND ORGANIZATION

ESTONIAN AGROPROM CONFERENCE DISCUSSES REPUBLIC APK PROBLEMS

Tallinn SOVETSKAYA ESTONIYA in Russian 5 Feb 84 p 2

/Article by S. Raudsep: "At a Cross-Road For the Branches"/

/Text/ Notes from sessions of the Presidium of Agroprom for the Estonian SSR.

For us agricultural journalists, the past year was an unusual one in many ways. This included the rates at which the work was carried out, as a result of which cur work lost its meaning after lying in the editorial office for days, and also the unexpected solving of complicated problems and the appearance of new ones. Indeed the mechanism for administering the republic's agroindustrial complex was completely unusual.

As a rule, new organizations commenced their work following sessions which lasted for many days and which were not very useful. And then the ESSR Agroprom decided not to create even the traditional republic staffs -- for carrying out the sowing work, for feed procurements and for the harvest campaign.

The need for compromising staffs disappeared. Indeed the republic's Ministry of Agriculture, the ESSR State Committee for Production-Technical Support for Agriculture and also the ESSR State Committee for Land Reclamation and Water Management, among which the principal agreements took place, merged and became a single active-operational organ and the leaders of all branches of the agroindustrial complex joined the Council of the ESSR Agroprom. It is precisely this council and its presidium which are collectively solving the more important problems.

"Exactly what are these problems?" I asked the 1st deputy chairman of the ESSR Agroprom Vello Lind.

"The chief one if you please is the program approved by the Presidium of Agroprom for the production of plant protein up to the year 1990" answered Lind.

Together with the secretary of the Agroprom Presidium Ivo Rebane, I leafed through the reports of the sessions. Many interesting problems were discussed.

For example, a method was approved for determining the degree of backwardness of a farm. It is based upon a so-called coefficient for the difference in management conditions, as proposed by Candidate of Economic Sciences Ya. Praggi. Such problems as supplying agriculture with cadres of specialists and summarizing the work results were discussed and examined and tasks were outlined for both the immediate and distant future.

All problems are important. But problems similar to these were examined at one time by the Board of the Ministry of Agriculture. Thus it came as no surprise to hear the following statement being made at one of the first sessions of the presidium:

"We summarized the results of the former Ministry of Agriculture. And a requirement exists for noting what is being done among our "neighbors" -- in Minmyascmolprom /Ministry of the Meat and Dairy Industry/, Minzag /Ministry of Procursments/ and among the builders."

And the Agroprom Council is constantly casting such a glance at its "neighbors." More than any other branch, the Agroprom Council concerned itself last year with the meat combines. Earlier these enterprises were not praised for having a high capability. And the increase in production which took place last summer at the animal husbandry farms was simply not expected by them. The refusals to accept the livestock became more frequent. Full-weight bacon swine and broilers were being moved from one place to another in the republic.

The minister of the meat and dairy industry, A. Essenson repeatedly had to furnish the members of the presidium with explanations as to the status of affairs in the branch. The task of correcting the shortcomings proceeded with difficulty. The meat and dairy industry was also criticized in the republic and central press. Nevertheless, by autumn all of the meat combines were able to place all of their capabilities in operation and thus they were able to cope for the most part with the processing of the livestock. But concern for the status of affairs continues. It was by no means an accident when, during one particular session of the presidium, the deputy chairman of Agroprom Yu. Kul'bin stated:

"The meat combines are experiencing difficulties in coping with the arrival of livestock today. And what will the situation be like when the livestock breeders in all areas achieve the level assigned for the five-year task?"

Unfortunately, A. Essenson on this particular occasion did not choose to share his plans for radically improving affairs at the meat combines and, just as in the past, he merely shed light upon the so-called mutual complaints.

A completely different position was taken in Agroprom by Estrybakkolkhozsoyuz. During one of the last sessions of the presidium, the chairman of the union Kh. Palu furnished information on the development of agricultural branches in the fishing kolkhozes. He stated that all of the farms in the system had over-fulfilled their plans for selling animal husbandry products. The presidium was confronted with certain problems: the fishing kolkhozes are not receiving concentrates from the state funds, insufficient attention is being given to the construction of animal husbandry facilities and housing for the livestock breeders and so forth. These problems were resolved immediately. Thus the chairman of Estkolkhozstroy V. Tamm stated: "We will correct the mistakes."

Agroprom has required the rayon agroindustrial associations to supply all of the fishing kolkhozes with mixed feed from the state funds. This now includes the fishing Kolkhoz imeni S.M. Kirov, which objected for a long period of time, and yet in 1984 it undertook to sell 500 tons of pork to the state.

The problems concerned with inter-branch relationships are discussed almost during each session of Agroprom. During a joint session of its presidium and the Board of the Ministry of Education, for example, a plan for the restoration of rural elementary schools, which were eliminated some time ago, was examined. Speeches are often delivered during sessions of the presidium by the republic's minister of procurements V. Rayevskiy and his deputies. On one occasion, a rather instructive exchange of opinions took place. The problem concerning an increase in the production of premixes for calvas and young pigs was developed by the Main Administration for Animal Husbandry of Agroprom. Having estimated their requirements, the authors of the draft decree, just as in the past, wrote: to request the republic's Minzag to increase the production of premixes for this type of young stock by so many thousands of tons.

"Unrealistic" stated V. Rayevskiy, "the funds for the components of premixes -for fish meal, oil-seed meal and so forth -- are strictly limited. The production of starter feed for calves and young pigs can be increased only if a reduction takes place in the production of mixed feed for poultry. Is Agroprom prepared to do this?"

Agroprom did not choose this course. And the authors of the draft decree began to justify their position: we used the term "request" and yet nobody is obligated to take any action...

"If no obligation is handed down" reasonably noted the chairman of Agroprom Kh. Vel'di, "then there is no need for writing. And immediately a new solution was proposed for the problem: to increase the production of starter and prestarter feed considerably during the summer and to reduce it by the same amount in the winter. Thus, almost no change will take place in the annual resource of protein additives, but they will be utilized in a considerably more efficient manner.

Equally instructive was a discussion concerning the construction of stores and dining halls in the rural areas. The chairman of ERSPO /Estonian Republic Union of Consumers' Societies/, A. Madik, was very explicit: consumer cooperation does not have any limits or funds for construction materials, but if the kolkhozes and sovkhozes building dining halls or stores, then ERSPO is obligated to purchase them.

At this point V. Lind posed a very logical question:

"Agriculture is cooperating in the use of forces and resources for the construction of stores and dining halls in the rural areas. But why is it that ERSPO does not cooperate in like manner with municipal enterprises in the use of resources?"

Many such examples could be cited. An excellent department sotre was built in the center of Tartu, but not request was made for construction limits from the gorispolkom /municipal executive committee/ for its erection. Similar situations developed in the case of the construction of fruit and vegetable stores in Tallin and restaurants in the rayon centers. Moreover, ERSPO is also carrying out construction work using agricultural limits in the city of Tyuri and in Laninskiy Rayon in Tallin.

Then there is the last subject to be discussed -- the problems of construction. These problems, owing to their generally well known complicated nature, were discussed repeatedly during the presidium sessions. On one occasion, I happened to be present during a meeting of the board of the republic's Ministry of Agriculture, when reports were being delivered by the chiefs of the rayon agricultural administrations. Each of the individuals delivering a report, in keeping with his oratorical skill, more or less successfully explained the reasons for the poor work by the construction organizations. But everything was different in the presidium of Agroprom. For example, the chairman of the Vil'yandiskiy RAPO /rayon agroindustrial association/ Yulo Rakhula asked:

"How could the leadership of the RAPO allow the annual volume of capital construction in the rayon to fall to 6 million rubles?"

The chairman of the Vyruskiy RAPO El'mo Saaru could not shift the guilt to others but rather had to recognize his own mistakes.

At the same time, it was noted during the session that many projects in the rural areas had not been placed in operation due to negligence on the part of enterprises of the Ministry of Construction. At the Misso Sovkhoz, for example, the local PMK /mobile mechanized company/, over a period of 3 years, has been unable to complete its work on a potato storehouse.

"No success was achieved in our attempts to establish business-like contacts with the Ministry of Construction" stated the chairmen from the various areas, "Only incompetent workers have visited the rayons in respons to our persistent requests."

It bears mentioning that the republic's Minstroy /Ministry of Construction/ did not send even an incompetent representative to this session of Agroprom. Yes Minstroy is still not attaching national importance to the problems concerned with agricultural development.

Thus it would appear that Agroprom has a sufficient number of problems. Nor is their number decreasing. To the contrary, they are increasing in number and becoming more complicated in nature. But I am convinced that this is engendering both cheerfulness and additional energy both in the center and in the various areas.

7026 CSO: 1824/342

AGRO-ECONOMICS AND ORGANIZATION

PROCUREMENT PRICES, PROFITABILITY IN UZBEK COTTON PRODUCTION ANALYZED

Tashkent EKONOMIKA I ZHIZN' in Russian No 10, Oct 83 pp 14-17

[Article by S. Usmanov, doctor of economic sciences, UZSSR distinguished economist and director of the Central Asian Scientific Research Institute for Agricultural Economics: "Differentiation of Prices--Key Factor in the Development of Production"]

> [Text] The Central Committee of the Communist Party of Uzbekistan[CPUz] and the UzSSR Council of Ministers have adopted a resolution concerning the new system of differentiation for cotton procurement prices, which goes into effect as early as this year.

We asked Doctor of Economic Sciences S. N. Usmanov, distinguished republic economist and director of the Central Asian Scientific Research Institute for Agricultural Economics, to discuss for our readers the reasons underlying the need to introduce the new system and the principal ways in which it will differ from the existing system.

Recently, as a result of a major increase in the cost of equipment and other material-technical resources being purchased by kolkhozes and sovkhozes, the cost of producing cotton began to rise, while its profitability declined. Farms which had previously been profitable, began to report substantial losses. (In 1980, there were 122 farms operating in the red, while in 1981, this figure jumped to 250. And when workers' wages on kolkhozes are raised to the sovkhoz level, which is an essential objective, the number of farms operating at a loss will grow even larger.)

The increase in average procurement prices for agricultural products, including cotton, which went into effect on 1 Jan 83 in accordance with resolutions of the May(1982) Plenum of the CPSU Gentral Committee, is a very important agro-economic action which will, no doubt, improve economic conditions on the whole in rural areas. Nevertheless, increasing procurement prices without taking into account the individuality of farms will not eliminate the inequitable conditions for expanded reproduction and economic incentive which currently exist among certain kolkhozes and sovkhozes.

An analysis of economic indicators for kolkhozes in the republic(during 1979-81) revealed persistent variegation in the level of profitability for cotton production.

Thus, if kolkhoz wages on all farms are put on a level with projected payments on sovkhozes, 275 kolkhozes--or 35 percent of the total number--are shown to be operating either at a loss, or at a low margin of profit. At the same time, 186 farms show profitability margins of 50 percent or more. The average yearly wage per kolkhoz worker on the high-profit farms amounted to 2000 to 2800 rubles, while on the farms showing little or no profit, the figures ranged from 1000 to 1480 rubles, or roughly half as much. On high-profit farms, the power/worker ratio(per worker) varied from 14 to 20 horsepower, the capital/worker ratio--from 2560 to 3720 rubles and nonproductive capital--from 1635 to 2690 rubles. In contrast, these same categories on farms with little or no profits showed the following figures respectively: 2-2.5; 1.8-2.1; 2-2.6 times lower.

It is quite apparent that these kind of variations in economic conditions existing on farms have a negative effect on attempts to stimulate efficient operation in kolkhozes and sovkhozes.

Planning methodology has traditionally taken the average production outlays--if only partially--of those enterprises operating under the worst conditions, that is, the level of closing costs, as a point of reference for the determination of procurement prices and other economic standards. This same reference mark of price-formulation for average outlays is also one of the major reasons for the unrealistically high profitability of farms producing under relatively good conditions, and also for the equally unrealistic unprofitability of farm enterprises operating under poor conditions.

Therefore, our planning system, in essence, has for a long time needed to employ economic measures aimed at mitigating these consequences: subsidies to certain sovkhozes, and removal of net surplus profit from others; writing off the liability of kolkhozes for debts when they do not have the means to repay them; ever wider use of differentiated zonal, belt, basin, regional and group prices; differentiated increase in prices for certain types of agricultural products and differentiated increments to the base price; sharp increase in prices for agro-products sold to the state in excess of plan; differentiation of income taxes from kolkhozes and sovkhozes depending on their profitability level; transition of sovkhozes to full cost accounting; introduction of guaranteed wage payment on kolkhozes, and so forth.

These and other measures have gradually displaced the orientation of price-formulation and the entire distribution system away from average production outlays toward more of an individual nature, which takes into account the differences in natural and economic conditions under which kolkhozes and sovkhozes operate.

Thus, we have the establishment of three different cotton price zones, a 1.5-fold increase in prices for raw cotton sold above plan levels, and price surcharges for cotton seed production costs, quality improvements in machine harvesting and payment of top-grade prices for cotton harvested by machine. All of this has brought about a differentiation in the actual selling prices by individual farms, taking into account all of these surcharges from 450-500 up to 600-650 rubles and more per ton, that is, a differentiation in selling prices between and among kolkhozes and sovkhozes which has reached 30 percent and more. But, has this differentiation facilitated the creation of equal opportunites for expanded reproduction and economic incentives in every kolkhoz and sovkhoz; has it taken into account production costs which are objectively established according to naturally existing economic conditions?

This problem has, unfortunately, not been solved. Here is the proof. For 182 kolkhozes, comparative cost(standard wage for all farms referenced against plan-wage on sovkhozes) totaled 329 rubles, while selling price amounted to 553 rubles; for 200 farms, these figures were respectively--516 and 538; for another 63--627 and 548 rubles. Thus, with a 1.9-fold variation in cotton production cost, the selling price in these groups of farms nonetheless turned out to be at the same level in all three cases, or even somewhat lower. Consequently, the respective profitability figures were: 67.8 percent, 4.3 percent and minus 12.7 percent.

The reason? The farms with low production costs, as a rule, are located in areas of relatively good naturally existing economic conditions, and they averaged 108 percent fulfillment of production plans. But the kolkhozes operating under poor conditions averaged 98 percent. The return on cotton produced in excess of plan was 50 percent higher.

For the more profitable farms, the average annual labor cost proved to be 1.9 times higher, the power/labor ratio--1.9, the capital/labor ratio--1.7, and sociocultural development capital--1.8 times greater than for farms operating under poorer conditions.

This means that the economic situation did not even out. Differentiation effected at a rate of up to seven percent proved to be clearly inadequate. But, as we can see, the problem is not simply a matter of rates--the very principle of three-zone differentiation, which was primarily designed for drawing up administrative regions, has shown itself to be imperfect. There was a 1.5-2-fold variance in the economic indicators for farms which happened to be located within the very same price group. For example, the first zone, where farming conditions are poor, included 223 sovkhozes with an average actual production cost per ton of cotton of 495 rubles and a profitability factor of 11.6 percent. Within this same zone, 23 farms had a production cost of 412 rubles, 86 farms--467 rubles, another 56--528, and 58 sovkhozes--623 rubles. Profitability figures were respectively: 33.6; 18.1; 6.1; and minus 11.3 percent, with the monthly sovkhoz labor cost also respectively: 188; 153; 135; and 117 rubles.

What happens is that farms operating under less favorable conditions and with low profit margins, because they lack both the means for normal development of production and economic work incentives in the collectives, turn out to be incapable of stepping up production output and increasing labor productivity, that is, they are unable to make maximal use of existing reserves. While, by comparison, farms situated in more favorable zones achieve the same results with greater ease, which nonetheless does not motivate collectives to seek additional reserves for increasthe harvest yield, while it cuts down their efforts to work more efficiently, since even without these added capacities, they have the means to defray all production requirements, including high labor costs and bonuses drawn from profits. A proper solution to the problem of incentives in both cases will facilitate the mobilization of previously unexploited domestic reserves for further increases in production efficiency and labor quality in every kolkhoz and sovkhoz, as well as throughout the agricultural sector.

The cost of production, in the form in which it is actually put together on farms, cannot be an objective indicator to be used for the formulation of price groups. The problem is that the wage rate incorporated in the cost of production differs from farm to farm. In per-worker computations, it fluctuates from 1000 to 2500 and more rubles. For this reason, the formulation of price groups according to actual costs does not provide the expected result. On farms grouped together by this indicator, profitability and other parameters have proved to be inadequately differentiated, in fact, the majority of the kolkhozes fell in the second price group, while the greater share of the sovkhozes comprised the third group all by itself. The explanation is simple: farms with low profit margins do not have the resources to make high payments to labor, and, as a result, the actual cost of production turns out to be artificially low. While, conversely, on farms with high profit margins, high wages paid to workers raise the actual cost of production.

Thus, the actual cost level to a significant extent is determined by controllable allocational relationships, and cannot, therefore, fully reflect the objective conditions under which production takes place on individual farms.

Adjustments of the actual cost of production for all farms should be made with consideration given to a uniform wage scale based on the plan guidelines for payments to sovkhoz workers, which averaged 1550 rubles for the republic as a whole. A calculated cost such as this is correlational, and as an indicator therefore more accurately reflects actual production conditions.

The grouping together of farms under this indicator distributed them more equably according to specific price groups, and revealed drastic variations in economic conditions.

For purposes of correlation with the existing three price Zones, the farms were also divided into three groups according to calculated cost of production.

In economic terms, the principle distinction of farm groups based on calculated costs from currently existing price zones is apparent in the fact that in the first group, for example, there are 89 kolkhozes from the third zone, 101 from the second, and 73 from the first zone; in the second group, there are 74 farms from the third zone, 133 from the second, and from the first--117 kolkhozes; in the third group, there are respectively: 29, 109 and 66. The self-same situation applies with regard to the sovkhozes.

In order to determine the optimal prices for all kolkhozes and sovkhozes, it would be advisable, in the first place, to increase the number of price groups, and, in the second place, to significantly extend the differentiation of prices so that they.more fully reflect the actual naturally existing economic conditions on individual farms. The staff of the Central Asian Scientific Research Institute of Agroeconomics has drawn up and presented to republic authorities proposals for extending the differentiation of purchase prices for cotton onto a wholly new basis. All farms have been divided into five groups, with careful accounting for expenditures related to naturally existing economic conditions peculiar to the individual kolkhozes and sovkhozes. The difference in price between zones at opposite extremes amounted to 20 percent. In fact, while the highly profitable farms earlier on has shown a rather minor increase in cotton prices, on the marginally profitable farms, prices jumped 20-25 percent and more.

The sharp increase--in the course of differentiation--in contrast between the first and the last groups is related to specific problem areas: a steep rise in prices in some groups, given identical resources, requires a corresponding drop in prices in others, which may lead to a reduction in stimuli to production growth in the last groups. The differentiation, therefore, could not be accomplished without supplemental resources. Exceptionally favorable conditions have been established at the present stage in association with the allocation of significant additional means for increasing procurement prices for raw cotton in accordance with the resolutions of the May(1982) Plenum of the CPSU Central Committee.

It should be noted that the formation of five price zones and the extension of procurement price differentiation, even though the economic situation on kolkhozes and sovkhozes is thereby being levelled out, is nevertheless not entirely solving this problem: within price zones, there still remain differences in individual production outlays and there continues to exist the possibility that farms will show low profits, and even losses. And, in this regard, the resolution of the May Plenum of the CPSU Central Committee concerning the establishment of surcharges to prices for agricultural products from farms operating under adverse conditions resulting in losses, has tremendous importance for a definitive leveling off of the economies of such enterprises.

Price Zones	No. of Farms in Zone	Actual Average Profitability 1979-1981(in %)	Profitability Under the same Conditions, but at new prices(in %) (Estimated)
I	58	8.1	38.9
II	109	16.3	41.2
III	333	19.6	40.3
IV	189	27.2	36.0
V	69	32.8	36.2

The Effect of the New Price Differentiation on Leveling Off of Profitability of Cotton Production Among Separate Groups of Kolkhozes(Excluding Farms Planting Fine-Fibre Cotton)

The overriding importance lies in ensuring that the means allocated for these purposes be effectively utilized. In order to do this, it is essential that a methodology for determining the degree of low or negative profitability be perfected. The crux of the matter is that the level of profitability depends on both the degree of relative importance assigned to wages in the overall profit picture, and, consequently, on the wage level which is determined on the individual farms. In order to eliminate the effect of allocational relationships in determining the level of profitability or nonprofitability, the correlational or calculated cost must be used, rather than the actual cost.

The new price differentiation will no doubt assist in providing for expanded reproduction and economic incentives in every kolkhoz and sovkhoz, as well as more successful utilization of domestic resources for increasing raw cotton production within the republic.

Now, kolkhoz and sovkhoz directors must direct most of their attention to implementing complex organizational and economic measures designed to reduce labor costs and the expenditure of material and monetary resources for cotton production. The reserves needed for effecting such reductions are still in ample supply. And a reduction in the production cost of cotton amounting to only one percent will provide a savings of 27.5 million rubles.

Today, the proper allocation of supplemental resources obtained by farms as the result of direct price increases is of great importance. There must be strict observance of the proper ratio between resources set aside for wages and for savings toward expanded reproduction.

The councils of rayon and oblast agro-industrial associations have been assigned a major role in the solution of all of these problems. They have been urged to make use of in-depth studies of kolkhoz and sovkhoz economics in order to skillfully manipulate the economic levers affecting production.

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TILLING AND CROPPING TECHNOLOGY

GRAIN CROP SEED PRODUCTION IN SIBERIA

Saratov STEPMYYE PROSTORY in Russian No 10, Oct 83 pp 18-19

<u>/Article by X.G. Asiyev, candidate of agricultural sciences and director of</u> the Siberian Breeding Center: "Organization of Seed Production for Grain Crops in Siberia"/

/Text/ Strain changing is an efficient reserve for increasing the gross yields of grain. This is borne out by a number of farms in Omsk Oblast, which as a result of having replaced old varieties by new ones have increased the cropping power by a factor of 1.5-2. The spring wheat varieties Omskaya 9, Irtyshanka 10, Rossiyanka, Shadrinskaya, Vera, Vega, Almaz, Altayka and others, created by local plant breeders, are capable of furnishing 50-60 quintals per hectare under production conditions. At the same time, the areas being used for these varieties are increasing only slowly.

An analysis of the actual situation reveals that 5-8 years are required for the introduction of a new variety. These periods can be reduced considerably. This is borne out by the experience accumulated in Omsk, Rostov and other oblasts of the Russian Federation. Omskaya 9 wheat can serve as an example of rapid strain changing. Here the sowing was carried out on the planned area during the second year following its regionalization.

Allow me to discuss briefly indivual elements of the Omsk system for introducing new varieties. The intense propagation of seed from the best strain specimen commences 5-6 years prior to regionalization. In order to shorten the propagation period, use is made of the southern reproduction point, organized by the USSR MSKh /Ministry of Agriculture/ in Surkhan-Darya Oblast in Uzbekistan, where early winter sowing is carried out. Over the course of 1 year, two yields are obtained, as a result of which the period for introducing the strain is reduced by 1 year.

The propagation of seed for the strain specimen is carried out for the first 1-2 years by a plant breeder and thereafter by workers attached to the plant production department. The latter establish nurseries for testing the offspring and they commence the intense propagation of seed. In the process, they take into account not only their own requirements but also those of other oblasts. Cooperation in primary seed production makes it possible to release other NIU's from having to perform painstaking and labor-intensive work.

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Cooperation is also possible in the production of seed. The exchanging of elite seed between the Altay Kray and Omsk Oblast has been in progress for 2 years.

Experimental farms play a tremendous role in rapid propagation. They commence sowing the seed for a new non-regionalized variety 3-4 years prior to its official recognition.

Thus workers at the Omskoye OPKh /experimental model farm/ began sowing the new Omskaya 9 variety in place of Sibiryachki 4 in 1975, 3 years prior to its regionalization; the following year another OPKh -- Novoural'skoye -- commenced operations. During the year of regionalization, the seed for this variety was made available to all farms in the zone of its cultivation.

The propagation of another early ripening variety -- Omskaya 12 -- was carried out in a similar manner and work was started on a new early ripening variety -- Omskaya 17.

Roughly 1-2 years prior to turning a variety over to Gossortset' <u>/</u>state strain testing network/, preliminary testing is carried out on the fields of the institute's seed production department. The best of these varieties are turned over to the institute's experimental and base farms, where production testing is carried out, new varieties are propagated and introduced into operations and the technological system for their cultivation is worked out.

At the present time, SibNIISKhOZ <u>/Siberian Scientific Research Institute of</u> Agricultur<u>e</u>/ has 60 base farms at its disposal in various oblasts of Siberia, the Trans-Urals region and northern Kazakhstan.

For the purpose of furnishing scientific-methodological assistance, responsible individuals are assigned to each oblast on a social basis from among the highly skilled heads of laboratories at the breeding institute and to the base farms -- scientific workers.

Handbooks on the special features and technology for cultivating the new varieties are published on a regular basis for the specialists at supporting farms and each year a demonstration is held on the latest innovations in plant breeding. Early each year a conference will be held at the institute in which the scientists, jointly with the agronomists of the base farms, will discuss the results of the production testing carried out on the new varieties and they will examine the work plans for the upcoming year. The group of varieties to be sown on the experimental field of a kolkhoz or sovkhoz will be defined more precisely and solutions will be found for those problems concerned with supplying seed for the best variety for its accelerated propagation. The leaders of all oblast and kray agricultural administrations in our region participate in the discussion.

The work of introducing new varieties is being carried out very successfully at the sovkhozes Sibiryak, Elita, Kop'yevskiy and Nizhne-Irtyshskiy in Omsk Oblast, in Mamontovskiy Rayon in the Altay Kray and in other rayons.

The rates for the introduction of new varieties at kolkhozes and sovkhozes are greatly dependent upon the availability of seed. In Omsk Oblast alone, the

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Kolos NPO <u>/</u>scientific production association <u>/</u> sells 18,000-19,000 tons of seed of high reproductions. Future plans call for the production of such seed to be increased to 32,000 tons, such that during the first and subsequent years for regionalization of the variety, elite seed will be available for the propagation tracts of all farms in the oblast (14,000 tons per 1,000 hectares of sowing).

Each year, on the basis of a decision handed down by the oblast executive committee, a plan is approved for the sale of 4,500 tons of seed for new and as yet non-regionalized varieties. This is typical only for Omsk Oblast; nowhere in the region are such plans being established for the NIU.

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TILLING AND CROPPING TECHNOLOGY

SEED SITUATION IN NOVOSIBIRSK OBLAST REVIEWED

Seed Preparation Problems

Moscow SEL'SKAYA ZNIZN' in Russian 17 Mar 84 p 1

/Article_by P. Chernov, Novosibirsk Oblast: "What Seed Should Be Placed in the Furrows?/

<u>/Text</u>/ There is an age-old truth: good harvests are obtained by those who attach priority importance to the variety and quality of the seed. In Novosibirsk Oblast, stable grain yields are being obtained by the farmers at the Cherepanovo Experimental-Production Farm, the Chikskiy Sovkhoz in Kochenevskiy Rayon, the Pervomayskiy Breeding Plant and the Sibir' Kolkhoz in Tatarskiy Rayon, the Kolkhoz imeni Uritskiy in Suzunskiy Rayon, the Berdskiy Sovkhoz in Iskitimskiy Rayon and at many others. Nor is this explained by the fact that the fields of these farms are generously supplied with rainfall. To a large degree, the yields result from the use of good quality seed and fine agricultural practices.

Although last year's season was extremely unfavorable from the standpoint of weather conditions, nevertheless the leading farms obtained 20 or more quintals of grain. Here, simultaneously with carrying out the grain harvest, they succeeded in laying away reliable seed funds and improving the seed to the proper condition. Thrifty concern for the seed was displayed by the farmers in Ordynskiy Rayon, where this year all of the kolkhozes and sovkhozes sorted out their grain crops in good time. An analysis carried out by a controlseed laboratory revealed: all of the seed was quality standardized and 84 percent met the requirements for 1st and 2d class. The seed was prepared almost completely (98 percent) on farms in Dovolenskiy and Tatarskiy rayons.

The machines on many farms in Karasukskiy, Krasnozerskiy, Zdvinskiy and other rayons are operating under full workloads. The agronomists have established strict control over the quality of the cleaning work. As a result, for example, the sorting of the grain is being completed in Krasnozerskiy Rayon, with 85 percent meeting the requirements for 1st and 2d class, including 43 percent -- 1st class.

Unfortunately, by no means is this the situation in all areas. According to data supplied by the state control-seed inspection, prior to the beginning of March one fifth of the seed in the oblast did not meet the requirements of the state standard. Especially complicated situations developed in Toguchinskiy, Iskitimskiy and a number of other rayons. On farms in Iskitimskiy Rayon, for example, almost one half of the seed was non-quality standardized in terms of germinative capacity and weediness. The preparation of seed grain was not organized in the proper manner at kolkhozes and sovkhozes in Bolotninskiy Rayon.

Toguchinskiy Rayon is located in the oblast's central-eastern zone. This zone has its own climatic peculiarities and difficulties with regard to the cultivation of grain crops. Last autumn the farmers had to barvest their grain crops under complicated weather conditions. Naturally, this raised additional difficulties in connection with the creation of the seed funds. The head of the Agricultural Department of the Toguchinskiy Rayon Party Committee, V.V. Vost'yanov, blamed the unfavorable seed situation in the rayon on these difficulties. But his reasoning was only partly correct. The rayon's kolkhozes and sovkhozes have more than 53,000 quintals of seed, of which amount 28,000 quintals are non-quality standardized in terms of moisture content and more than 3,000 quintals -- in terms of weediness. However, the work of the grain cleaning and drying stations has still not been organized in any of the areas.

Of the state reserves at the grain receiving station, the rayon's kolkhozes and sovkhozes must obtain 90,000 quintals of seed in the form of exchange, but they obtained only 38,000 quintals. Why? The leaders of some farms are unwilling to engage in exchange operations. The fact of the matter is that the oblast is supplied with seed that is extremely weedy and of doubtful reproduction. The Kolkhoz imeni XX S"yezda KPSS exchanged only 1,420 quintals at the grain receiving station and the administration decided to retain on the farm approximately 2,000 quintals of wheat seed having a germinative capacity of from 29 to 83 percent. The kolkhoz's seed production agronomist, O.N. Anyutina, explained this situation as follows:

"Why should the station accept seed having a raised seed impurity content? It is better to sow the fields using one's own seed, assuming that it is prepared in advance.

At the Klyuchevskaya in this same rayon, not one kilogram of 3,800 quintals of seed has as yet been exchanged. The farm's director, I.T. Vorotnikov, also refers to the poor quality of the seed which the grain receiving station is offering and he hopes that he will be able to import for exchange purposes genuine seed instead of rubbish.

In accordance with the plan of the republic ministries for agriculture and procurements, the oblast must be supplied with 70,000 tons of grain crop seed and 20,000 tons of corn seed. Of 50,000 tons of wheat, 35,600 tons were delivered to the grain receiving stations prior to the beginning of March, including 25,000 tons from Orenburg Oblast instead of the 32,000 tons called for in the plan. Moreover, almost all of the seed from Orenburg Oblast (20,000 tons) turned out to be non-quality standardized -- contaminated by barley. A kilogram of wheat seed contained 150-500 grains of barley. For example, 12 freight cars loaded with seed grain of the Saratovskaya-29 wheat variety were delivered to the Suzun Elevator from the Shildin Elevator in Orenburg
Oblast. The shipper's documents indicated that there were no more than 164 units of difficult to separate out impurities (barley grain) per kilogram. However, an inspection revealed that the proportion of barley was considerably higher -- from 200 to 500 grains per kilogram. Sub-standard seed is being imported into Novosibirsk Oblast from the Buryat ASSR and Chita Oblast.

Everyone in the rural areas is familiar with the amount of work required in order to develop full-weight ears. Success can be expected only when excellent seed is placed in the ground and when the soil is prepared in the proper manner for sowing and all weeds removed. Thus the chief and priority concern of the Siberian farmers at the present time is that of deciding upon what is to be sown, when and how.

Bureau Warns Agricultural Chiefs

Moscow SEL'SKAWA EHIZN' in Russian 10 Apr 84 p 1

/Article by A. Filatov, 1st secretary of the Novosibirsk Oblast CPSU Committee: "What Seed Should Be Placed in the Furrows?"/

/Text/ The Bureau of the Novosibirsk Oblast CPSU Committee has discussed the article entitled "What Seed Should Be Placed in the Furrows," published on 17 March and it recognizes the criticism as being correct. The Bureau has warned the chiefs of the agricultural administration of the oblast executive committee N.A. Loktionov, the Novosibirsk Fruit and Vegetable Farm Association V.F. Kozhanova, the oblats's grain products production administration Ya.M. Kobitskiy and the director of the Ptitseprom Trust L.G. Shmidt concerning their personal responsibility for completing the seed preparation work for spring sowing no later than 15 April.

At the present time, work is being carried out on all of the farms aimed at improving the seed to a higher quality condition. Exchange operations are being carried out in an active manner, with 70,000 tons of seed being shipped from the grain receiving enterprises to the kolkhozes and sovkhozes. The oblast's party, soviet and agricultural organizations are undertaking all of the necessary measures to ensure that the spring sowing is carried out in a high quality manner, during the best agrotechnical periods and that a reliable foundation is established for the future harvest.

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TILLING AND CROPPING TECHNOLOGY

BRIEFS

SIBERIAN WINTER WHEAT -- Novosibirsk -- The Siberian farmer has always shown a preference for winter wheat. With the aid of this crop alone, he could eliminate the complete domination by spring grain crops, expand the tense sowing and especially the harvest periods and achieve greater stability in the grain yields and harvests. Unfortunately however, the international collection of winter wheats does not contain any forms which could provide the foundation for the breeding of special winter-hardy Siberian varieties. Nevertheless, such a foundation has been created by our Siberian scientists. As a result of research carried out over a period of many years, they discovered that some of the intermediate hybrids of wheat and wheat grass possess a high degree of winter-hardiness. As a result of the action of gamma rays on the plants of one such hybrid, they obtained several promising forms of winter wheat. These have been adopted by the plant breeders. Following many years of laborious study, the selection of promising plant forms, technological evaluations and ecological tests, they created the Al'bidum-12 winter wheat_variety and they turned it over to Gossortset' /state strain testing station/. Based upon a decision handed down by the State Committee for Strain Testing of the USSR Ministry of Agriculture, Al'bidum-12 was regionalized for 1984 for the Altay Kray. It became the first standard winter wheat variety in Siberia. The variety was developed by workers attached to a remote hybridization group who work in a laboratory concerned with the genetic principles of plant breeding --V.M. Shepelevyy, L.P. Slavgorodskaya, N.I. Tarasovaya and V.F. Chayka. /by P. Chernov/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 27 Mar 84 p 1/ 7026

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FORESTRY AND TIMBER

BRIEFS

ABOVE-PLAN TIMBER--Kudymkar--The timber procurement specialists in the Komi-Permyak Chrug have won the campaign against the spring season of bad roads. Since January they have shipped 1 million cubic meters of wood -- considerably more than the amount for this same period last year. Tens of thousands of cubic meters of timber have been obtained over and above the plan. The greatest contribution was made by workers attached to the Gaynyles Association. /Text/ /Moscow SOTSIALISTICHESXAYA INDUSTRIYA in Russian 3 Apr 84 p 1/ 7026

TIMBER MACHINE DELIVERIES--Yoshkar-Ola--The timber machine building plant produced 12 powerful rolling-baling LP-19 machines over and above the plan for the first quarter. The deliveries were carried out completely in accordance with the contracts. The feeling within the collective is that this success was achieved as a result of the competition for an above-plan improvement of 1 percent in labor productivity and a one half percent reduction in production costs. In addition, it was based upon a strict regime for achieving economies and thrift. /by U. Bogdalov/ /Text/ /Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 8 Apr 84 p $\underline{1}$ / 7026

CELLULOSE PRODUCTS--Ust-Ilimsk (Irkutsk Oblast)--The Ust-Ilimsk Timber Industry Complex is intensifying its deliveries of products. One million tons of cellulose have been produced here. It is an excellent raw material for the production of high quality types of paper. A portion of the cellulose will be delivered to those CEMA member states which participated in the erection of the complex. /Text/ /Moscow TRUD in Russian 25 Feb 84 p 1/ 7026

ACCELERATED OPERATIONS--Kudymkar--The timber procurement specialists in the Komi-Permyak Okrug have won the campaign against the spring season of bad roads. Tens of thousands of cubic meters of timber have been obtained over and above the plan. The greatest contribution was made by workers attached to the Gaynyles Association. The drivers of the timber carriers have converted over to an around-the-clock regime for shipping the wood. They have accelerated their operations so as not to hold up the transport workers and the operators of the rolling-baling machines. Their crews have also commenced working on a double and triple shift basis. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 3 Apr 84 p $\underline{1}$ / 7026

NEW LOGGING MACHINE--Krasnoyarsk--The timber procurement specialists have assigned a high value to the new LT-65B jaw-type loader, the series production of which has just commenced at the Krasnoyarsk Plant for Timber Machine Building. While retaining the load carrying capability of its predecessor unit, the new machine is faster and more maneuverable. This year the workers at the Krasnoyarsk pland will produce 2,000 such machines. /by V. Khrustalev/ /Text/ /Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 5 Apr 84 p 2/ 7026 CSO: 1824/363 END

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