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HUNGARIAN FOOD PRODUCTION

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## PREFACE

This volume of our series of bulletins is numbered 64 and considering the subject matters contained it will be stated that here the economic problems of the more important production branches of agriculture are discussed. Competitiveness and market orientation are also important aspects in view of the investigation.

Considering the tendency and the source of the articles it must be said that these articles are new ones published in this year in the professional review "Gazdálkodás" (Farming) and "Közgazdasági Szemle" (Economic Review). The first article is the text of the lecture given by Gyula Varga at the University of Veterinarian Sciences and Appendix at the end gives an information about the thirty years of activity of publication done by "Gazdálkodás", the scientific review of Hungarian agriculture dealing with farm management and agricultural economics.

It must be noted that the bulletins published in English and Russian have discussed also in the past the subject matters of sectoral agricultural economics and according to our experiences and opinions also the readers in the foreign countries have been found to be interested in them, either due to the fact that there were foreign connections discussed or because they provided information on the conditions pertaining to production of foodstuffs. See in this respect e.g. bulletins No. 37, 46, 55, 56, 61.

The present issue of Bulletin 64 discusses not only the development and the problems but it offers also opportunities of comparison when it deals with analysis of producing maize, wheat and fruit, of producing beef, poultry meat and pork and of the production systems considering the tasks of the present and the results in 1985.

The examination of the main agricultural production branches will in a complex way reveal not only the group of problems concerning the system of necessities prevailing in the foreign markets and concerning the competitiveness, but it also deals with the necessity for close connection between the large-scale and small-scale production and for their affecting each other mutually.

Budapest, June 1986

The Editor

The role of agricultural enterprises in  
increasing the quality of pork produced by small-scale plants

by

József ALVINCZ - Kálmán KÓBOR

Abstract

Small-scale production is closely connected with the agricultural enterprises. This statement is especially true in the case of the verticality of pig production, because here the small-scale production is based on the direct or indirect dependency on production done by the agricultural enterprises. Agricultural enterprises are important factors in supplying fodders and other materials - necessary for breeding and fattening - and especially in organizing the trade. The enterprises, on the other hand, taking part in the present system of commitment will only be able to comply with the needs of increasing the quality of the products of the meat industry if they do their integrating activity as an enterprise stimulated by their being interested. This task necessitates the modernization of the system of commitment to include also the production ordered from outside and the increase of the level of the quality.

Quantitative changes in selling the products produced by  
small-scale producers

Both in producing pork and within its sphere also in supplying the state meat industry with raw material the selling of pigs by small-scale producers is of extraordinary importance. Considering the last two years this is proved by the figures and data in Table 1. The weight of pigs (the total amount) produced by the household farms and by the complementary farm plots and sold to the state meat industry has been increased since 1977 without interruption. Parallel with the number of heads sold also the share of pigs produced by small-scale farmers and bought by the Trust of Livestock Trade and Meat Industry (in the following marked by ÁHT = Állatforgalmi és Husipari Tröszt)

has been increasing within the figures marking the total. If we look back in time to 1970 then increment of 36 per cent considering the rate of share of 11 per cent in that time will mean in the same time that the total amount in 1984 was 12.5 times as much as it was in 1970.

In 1985, however, the production has already been on the down grade. When considering the figures of the first three quarters of the year, it has been found that the enterprises of AHT have been purchasing a smaller amount by 11.2 per cent from the section of small-scale production, doing the calculation by considering weight, as compared to the same period in 1984. This amount has been less by 4.2 per cent than the figure estimated to be ideal.

The decrease was of a smaller rate (11.1 per cent) when considering the number of heads. The difference of a higher figure was due to the smaller figures of average weights in 1985. While in 1984 - due to a delay in purchase, the average weight has been increased, in 1985 - due to contrary causes - of pigs it has been decreased in a smaller rate. Comparing the figures of the first three quarters of the year in both years results in a difference of 1.4 kg/head.

In the production plan for 1985 a decrease of 3.4 per cent has been supposed as compared to the basic year in the total figure for producing pigs for slaughter. Also in the press it has been announced that a decrease of 7 per cent may be considered to be optimal. Taking into consideration that more than 50 per cent of the market pigs have been provided by the small-scale producers, it seems to go without saying that a decrease has been planned only with this sector. In the same time, however, the amount of pigs purchased by the meat industry enterprises has been decreased by 17 per cent in the case of agricultural enterprises and moreover large-scale fattening units of the meat industry - being of a smaller importance - have had an output smaller by a greater rate (25 per cent). This fact has played an important role in demand of commodity causing temporary troubles in supply.

The decrease of production figure with the agricultural enterprises has in the first place been the result of the income position of the branch of pig production, while the sudden stop in the production done by the small-scale producers has been the result of the effects of several unfavourable conditions in the same time. Of these

the following ones can be mentioned: 1/ difficulties in the suppli-  
ance with fodder due to a great draught, 2/ purchase actions in de-  
fault in 1984, 3/ the unfavourable winter weather, 4/ increase in the  
production costs, and 5/ inefficiencies of information in introducing  
the qualification after the slaughter and relating the regulation of  
production.

In order to stop the production of pork to continue in the fu-  
ture and to ensure a suppli-ance with a raw material of higher quality  
the Ministry of Agriculture and Food Supply has ordered - in compli-  
ance with the decision of the Economic Committee - that the conditions  
referring to the breeding stock and the fodders should be improved  
and in connection with this favourable conditions should be introduced  
(e.g. in winter time the suppli-ance of sows in farrows should be sup-  
ported, the suppli-ance with fodders should include also the mixtures,  
and so on). It has been decided that in order to improve the condi-  
tions of pig production the purchase prices both in the case of large-  
scale and small-scale producers of pigs should be increased from the  
1st January, 1986 with fodders supplied at lowered prices at the same  
time.

According to the new purchase prices reported the carcass of pig  
produced by a large-scale produced and belonging to the quality clas-  
ses I-IV will be increased by 2.50 Ft/kg. When considering live weight  
this will be 1.50 Ft/kg and this will be indeed to increase the pur-  
chase price in the case of pigs produced by small-scale producers if  
the pigs have the proper weight. The prices will be increased in a  
differentiated way in order to stimulate the producers to have a high-  
er quality of their products.

This latter target is considered in applying the qualifiaction  
after slaughter done in a facultative way. If the producer accepts  
this way of qualification he will have an extra sum of additional  
0.60, 1.20 and/or 2.10 Ft/kg as a premium of quality after pigs be-  
longing to quality classes III-I over the basic price and extra  
charge paid in the case of live qualification of the pigs.

#### Changes of purchase prices and fodder prices

The readiness of small-scale producers to sell their pigs has  
always been in a close connection with the purchase prices and the  
prices of fodders. Taking this statement as a starting point - and

considering the methods of feeding applied and also the intention to produce pork of a higher quality class - we have examined the connections between the fodder cost of 1 kg gain in weight when feeding had been done by applying fattening mash and the purchase price. The findings of the examinations are to be found in Table 2 on the basis of calculations referring to the period of fattening and considering a figure of 4.8 kg for the specific consumption of fodder.

The income position of keeping pigs as a whole will not be discussed here in details: partly due to lack of space and the more so because it is considered that according to our opinion the profitability of breeding will greatly be influenced by that of fattening; on the other hand, the number of small-scale producers keeping sows is small who will exclusively sell his own piglets as fattened pigs. (Greater is the number of those considering the changes of prices in the free market and their trends and either they sell basic material for fattening at a high price or they will begin fattening by using cheap piglets.) It can be supposed that small-scale production of pigs will mostly be influenced by the conditions of fodder supply and also by the income position of fattening.

The results of fattening will be manifested in the covering value being increased in recent years in a small degree. Fattening, however, will involve also other items of cost not only those of animals put into fattening and of the fodders. The real specific gross income in this way will be smaller than the figure to be found in the calculations. The gross income per a fattened pig will be considered to be important in connection with the characteristics of the amount sold. As it has been proved also by a recent examination,<sup>+</sup> in Hungary the degree of concentration of selling pigs produced by small-scale production is relatively low. (According to the investigations most of the producers deal with 1 to 10 pigs.) In the same time this means also that the need of producers for the specific income is greater, because labour input will only be increased in a smaller degree as compared to the increase in number of the pigs. (See Table 3.) If the small-scale producer used less of the fattening mash and to replace them fed to the animals grain fodders not acquired from buying

<sup>+</sup>The representative examination included three counties and the total number of small-scale producers providing figures cited here was 1,200.

and other waste fodders, or piglets from his own breeding have been put into fattening, then the figure of income per pig was more favourable as compared to the values shown above.

The examination of fodder prices and purchase prices will result in the statement that the ratio of these two figures have changed in recent years to increase the amount of income in a moderate way. This affected the readiness of small-scale producers to deal with breeding and fattening of pigs and increased the figures of purchasing by ÁHT and its enterprises in the most recent years. The size of profitability, on the other hand, has not made it possible - and even now it does not do so - to introduce a greater element of risk in the process of production. (This latter statement has a special importance in connection with introducing qualification after slaughter.)

Also it must be stated that with the fodder prices existing nowadays and with the system of qualification of the living animal it was not possible to decrease in the necessary degree the feeding of grain fodders. In this way also from this side it was impossible to influence properly the development of the quality with pigs produced by small-scale producers.

#### The quality of pigs produced by small-scale producers

In recent times more and more opportunities are to be met when it is stressed that it is necessary to improve the quality of pigs produced by small-scale producers. There are some opinions that the quality has been decreased. This statement and its content of reality can be brought into connection with the fact that though the indices concerning the content of the fodders sold by enterprises in grain trade and mill industry have not charged according to the documentations, taking the total figures it seems to be inevitable that their quality has been deteriorated. While the level of production in the case of protein fodders produced in Hungary has remained nearly the same the import of protein lagged behind the production of animals for slaughter. While between 1982 and 1984 the production of pig and poultry for slaughter has been increased by 11.7 per cent, the import of proteins - in any case being below the necessary level - has been decreased in 1984 - after having been raised in 1983 by 15 per cent - to the level of 1982.

Beside of this also a relative decrease of quality has taken place affecting the consumers in Hungary. This is mainly due to the change in the ratio of pigs produced by the agricultural enterprises, on the one hand, and by small-scale producers, on the other. The increased amount of pigs produced by the small-scale producers will influence also the trade. In order to increase the amount of hard currencies gained (or sometimes at least to preserve the level of currency gain reached before) the export has been developed and this resulted in the lack of pigs produced by large-scale enterprises for producing carcass meat. In this way the consumers have got less opportunity to buy pork of a higher quality though in recent years the supply with meat has been improved. The sensitivity of the consumers concerning the quality of the meat has been increased as compared to the level experienced previously and this is due to the increase of meat prices and to the present level of consumer's prices.

The increase of need for the higher quality has been made possible also by the increased level of supply in pig in the years of 1983 and 1984. (According to our opinion, however, the evaluation of supply and demand in the several cases has been proved to be short of the necessary precaution.) In connection with the statements considered above several points of view have inevitably to be taken into account. One of the facts is that producing pork by small-scale producers cannot be considered to be stable though in recent years the production has been experienced to increase in an uninterrupted way. (This statement is supported also by the facts and experiences gained in 1985.) The amount of production has been increased without the simultaneous improvement of the quality; to do a production resulting in a higher level of quality necessitates the still missing conditions in the fields of genetics and feeding. Quality, being a category for measuring the value presupposes objectivity of a more significant measure and it is due to this that its real content could be measured on the possibly highest level of exactness. This will, however, be possible only after qualification following the slaughter will generally be applied after a transitional period of time. Because the method of qualification having been applied before and including qualification of the living animal has not made it possible to measure the real content of quality with the possibly highest exactness, it

has not been possible to make the small-scale producers become materially interested in improving the quality.

The lower level of quality is disadvantageous not only for the consumers but it is contrary also to the interest of the specialized branch concerned because, on the one hand, meat industry could not increase its basis of exportable commodities in the necessary measure (though the figures of quantity have been increased), and on the other hand, pigs purchased by the meat industry from the small-scale producers on the average level have been overpaid when a comparison is made to the pigs produced by agricultural enterprises and the figures pertaining to qualified characteristics are considered. This will also be proved by examining the purchase price of meat and bone because in the last two years it had the values as follows: in 1983 and with pigs purchased from the agricultural enterprises it was 62.38 Ft/kg, while in the case of pigs purchased from small-scale producers its figure was 63.21 Ft/kg; and in 1984 the values mentioned above were 65.68 and 66.35 Ft/kg in the same order.<sup>+</sup>

In contrary to the statements above - according to our opinion - after the system of qualification following the slaughter has been introduced, the purchase prices should be formed (at least temporarily) to provide a proper level of profitability for the producer to ensure that even the price belonging to the category of the lowest class should bring a proper income for the producers in the purchase price of the pig to be delivered. This method, on the other hand, will involve the increase of the level of purchase prices.

The question may arisen of debiting the additional costs to somebody or that by means of what financial sources the specialized branch will cover the increased costs? This question in the same time makes it also necessary that the target and meaning of the term "improving the quality" should be clarified. In solving this task the following main considerations will possibly be taken into account:

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<sup>+</sup>Due to the two kinds of slaughtering the pigs, i.e. hot water treatment of the full body ("skinny") and skinning, only the second method makes it possible to measure with exactness the amount of meat together with bone. That is why figures shown refer to pigs handled by applying this method. Pigs purchased from the agricultural enterprises will be handled following the first method, the "skinny" method when they are of a higher quality and it is due to this that difference between the purchase prices related to the meat and bone will be greater in an increased way.

1. The higher level of quality will properly increase the possibilities of export and from the increased sum the additional costs resulting from the increase of the level of the purchase price will be returned.

2. The costs of increasing the quality will be debited to the Hungarian consumers. If this method will be considered it should also be taken into account that already the present level of meat prices is rather high when it is related to the salaries and wages.

3. The items of additional cost will be equalized by the state by supplying additional support. The amount of support - sums to increase the income from the export and home prices - was, however, a very great sum already in 1984 by being near to 15 thousand million Ft; on the other hand, the result produced was only 4.3 per cent of the above sum. On the long run it would not be proper to establish the economic activities of the enterprises on items of such kind of support because this would already basically questionized the fact of being an enterprise.

It is natural that the improvement of the quality is hoped to result some kinds of additional value. This will, however, take place only after a period of time. The increase in production of meat and bone will anyhow counterbalance the increase of the purchase price. And in this way especially the facts mentioned above under 2. and 3. will be effected.

It must be stated that it is necessary to improve the quality of pigs produced by small-scale producers and this will be realized in the first place by means of activity on behalf of the agricultural enterprises. This statement will be supported by the fact that most of the production of animals for slaughter produced by small-scale producers is being based on fodder production by the agricultural enterprises. The supply with fodders, however, will in most cases be realized by means of enterprises in grain trade and mill industry and this is considered - with the system existing - to be one of the factors destroying the integration between the agricultural enterprises and the small-scale producers, in the same time affecting the possibilities of improving the quality on behalf of the enterprises.

Another objective factor of producing pork of a higher quality is to have the necessary genetical basis. Due to the concentration changes within the branch of pig keeping by the agricultural enter-

prises the number of enterprises not having their own stock of pigs is quite great. This is why they can play a role in replacing the breeding stock only in an indirect way as transmittents. (The location of sows in pig financed by the enterprises in meat industry will serve also the committed people having a commonly owned stock of pigs.)

The present state of the integration

It is partly a result of the facts mentioned above that the system of commitment introduced on 1st July, 1976 in order to support the more effective organization of the small-scale production had not only roughly described targets on the field of production but in the first place it was to modernize the organization of trade and the methods of being in contact with the small-scale producers. The full-scale transfer of organizing the trade - and together with this the abolishment of parallel activities on behalf of enterprises in meat industry and in the activities of the committed people, and also the rational modification of the way of the commodity - has not yet been established. This is of a bad effect on the meat industry from the point of view of improving the degree of integration of the verticality and the increase of cost. \*

The above mentioned statements can be supported by reasons as follows:

- The responsibility of the enterprises (as users and traders) in supplying the basic material has not been decreased even after the establishment of the system of commitment. The enterprises are having some kind of suspicion towards the committed people and in several cases they do it not without any basis; and on the other side (due to their conditions) the integrators are not having the same responsibility in the trade of pigs as do the enterprises in the meat industry. So far it was in vain to increase this responsibility to the proper size by means of paying the commitment fees.

\* In 1983 the amounts of money payed as the fee of commitment was 254 million Ft and the maintenance cost of the purchase administration of the meat industry was roughly 269 million Ft. In 1984 these two figures were 262 and 339 million Ft, respectively. (The purchase cost is considered without the burden of the interest.) The sum of price support for the quantity is not an item belonging to the cost items of commitment nevertheless its size is impressive: it was 211 million Ft in 1983 and 233 million Ft in 1984.

- The enterprises in the meat industry - especially in the early period (but partly even to-day) - have supposed in some degree the system of commitment to be a factor to hinder the activities of the enterprises.

- Though the size of the purchase administration of the enterprises in meat industry has been decreased both absolutely and relatively considering the increased amount of pigs produced by the small-scale producers, its organization has not been changed in an important measure with comparison to the period preceding the introduction of the system of commitment. The keeping of people employed in this field without any change - i.e. in their original field of activities - is partly a problem of employment, and partly as an opportunity to get more items of information concerning small-scale production.

- The overall introduction of the full-scale organization of trade is hindered also by the opportunity to do transporting activity to the various places of destination - for example, in another county. Many of the committed people deal with transporting the pigs produced by small-scale producers to the site of takeover but most of them could not do the task of transportation to a more remote place of destination.

- In establishing business connections between the meat industry and the agricultural enterprises the first step has always been made by the meat industry. That is why the further development of the organization of trade has been considered to be an exclusive task for the meat industry when the relations between the parts have been considered.

- The commercial connections of the enterprises in the meat industry have always been influenced by the AHT both in the past and also in present times. The rules prescribed by it have considered the interest of the state industry in meat procession and due to this it was inevitable that uniformity has appeared. In this way the various characteristics and management conditions of the enterprises have been moved to the background. The enterprises have become rather passive in establishing commercial connections, and the consequences of this are characterizing them even to-day when their degree of independency is greater than it was before.

- Within the cost structure of the enterprises in meat industry, the price of the basic material have a determinate importance and this cannot be influenced basically. It is mainly due to this that these enterprises even to-day are not receptive enough to the other items of cost.

The modernization of trade is only one of the means to change the small-scale production into a more integrated one, and it is an important one, indeed. The other field of integration includes production. The simultaneous examination of both activities makes it necessary that the present state of integration should be revealed.

If we examine the starting points to stimulate the integration of pig production it will be stated that presently and in the most cases an overweight can be found on behalf of other effective factors, such as the formal or informal needs of the higher administration, the material support of the members of the cooperatives not in the form of wages but supplying them with various kinds of services to support them in the production. The establishment of the system of commitment has not been based on any economic considerations of the agricultural enterprises or of these in the meat industry (or on its inner acknowledgement) but it took place as stimulated from outside, on behalf of the government considering the experiences of the cycle of pigs in 1975. These characteristics belonging to the past have unfortunately been kept to survive even in most recent times by the system of commitment. On the other side, however, the forces of enterprise economics of the agricultural enterprises have continuously been to become stronger. Amongst them the most important are as follows: the increase of the fields of activities, to ensure opportunities of employment and last but not least to strive to introduce profitable activities. The important task of the specialized branch is to influence these as it is wanted on behalf of the inner necessities of the industry.

#### Some characteristics of the behaviour on behalf of the committed people

A more detailed investigation has been done by us to include three counties and therein more than forty committed people in order to see the present state of integration of the small-scale production in the verticality of pig industry.

Though an important part of the committed people - in our case 65.2 per cent of the people questioned - was of the opinion that integration of producing animal for slaughter is a profitable activity, even they seemed to be less ready to improve the field of this activity. That is why there may arise great hindrances in trying to raise the degree of integration of small-scale production on a higher level more up-to-date as it is now. In the verticality of pig industry the organization of small-scale production has been transferred from 1976 onward to the field of activities of the agricultural enterprises (and in a smaller scale of that of the General Cooperatives for Consumption and Trade = Általános fogyasztási és értékesítési Szövetkezetek - ÁFFESZ). This involves in the same time that meat industry basically has been forced to accept this frame of organization and during the last ten years it could not do more than to adapt itself to it without being able to influence its development greatly.

According to our best knowledge there has so far no conception been shaped in the specific branch concerning the further development of the system of commitment. Even it has not been clarified unambiguously so far that commitment fees will be utilized for what purpose: either production or purchase, or maybe both of them. Concerning the present state it may be stated that committed people in most of the cases deal only with organizing the trade and even this they do not do in a full scale, though in many cases they are being given the full-size fee. If we examine the activities done on behalf of the meat industry, on one hand, and on behalf of the committed people, on the other, in this way it cannot be stated that they are counterbalancing each other to result in a common interest. This is why it is inevitably necessary to clarify what services will be rewarded by the commitment fees and also that what will be the proper size of the fees (to reward a particular service). For this purpose a proper opportunity is offered by the intended introduction of qualification after slaughter concerning pigs produced by small-scale producers.

Even in present times one of the main hindrances in developing the commodity connections is that the system of commitment has not been manifested as an enterprise on the level of partner relations.

(Unfortunately the same statement is valid also when the level of state control is concerned.) In this way it can be understood in some way that the rightful claims and interests of the meat industry have not manifested themselves more thoroughly on this field than it is experienced in present times. According to our opinion to make a progress in this field it is basically necessary that the integration of producing pork will manifest itself within the sphere of people concerned as a form of undertaking with contractors. If the relations of commodities will be interpreted in this way the possibilities will be created to make a progress in the field of integrating small-scale production.

There are several variations in doing the organization of keeping and selling pigs by the small-scale producers in a more differentiated way. Even it seems to be the most prospective solution if this field of activity will be developed further within the frames of the agricultural enterprises. This idea is supported in the first place by the fact that in Hungary the small-scale production - with the exception of some fields - has been established on the production done by the agricultural enterprises as a (direct or indirect) relation of dependency. Considering the branches of animal husbandry it is easy to understand that the activity of the small-scale producers in most cases not having own fields to produce fodder on them can be done if it is based on agricultural enterprises. In compliance with the aforesaid also the supply with breeding animals and the doing of other services seems to be accomplished with most probability also within this frame of organization.

The level of services provided for the small-scale producers both in the past and in the present times may not be considered to be proper on a nationwide average. These statements will be supported by the fact that own produced fodder is sold mainly as mash concentrate. Thirty per cent of the committed people questioned - according to his own admittance - has not done any steps in order to improve the quality. (The other party of 70 per cent was also partly active in trying to support the improvement of quality.)

These negative characteristics are partly due to the enterprise-like features of the committed people, and partly and mostly they are the result of their not being interested in improving the quality.

In order to modernize the trade it is inevitably necessary that pigs for slaughter should be transported to the site of destination. As earlier it has been mentioned most of the committed people refuse to do this service.

We are sure that in cases when the agricultural enterprises (or just the General Cooperatives for Consumption and Trade) refuse or are not able to cooperate with the meat industry on the level properly wanted and to do the services needed, the enterprises in the meat industry are forced to look after other variations of settling the problem. It can be a possible way to change the organization of production and purchase by the enterprises in the meat industry and/or - considering smaller areas - to establish small-scale undertakings also proposed by the producers themselves. Beside of all of these it must be stressed repeatedly that the forms mentioned in the last cases should be introduced by the industry properly only in those cases when there are no other possibilities for the industry to settle the problem. This refers to the cases when the agricultural enterprises are not ready to undertake and/or cannot do these tasks, i.e. to do production on the necessary level and to modernize the organization of the purchase.

Thoughts on the possibilities of further developing the system of commitment<sup>+</sup>

Analysing the development of agricultural relations of enterprises in the meat industry both in the past and in the present times will lead us to the conclusion that the degree of integration of production done by the aforementioned fields in the reality has not been improved at all and that the marketing and processing are forced to adapt themselves to the changes in production. The specific branch needs the development of integrative activities in the field of small-scale pig production the most urgently. The importance of this sector may be supposed to be of a considerable influence also in the long run on the quality of the commodity connections.

<sup>+</sup>In compiling the material of this chapter also the opinion of Dr. Ferenc VÁGI on the integration has been incorporated.

As it has been referred to earlier most of the committed people is of the opinion that the activity done by them - on the present level of the services of integration provided by them - is profitable. (There are several cases, however, when the unit of profitability has not unambiguously been cleared.)

Of the committed people questioned - in this case agricultural enterprises - 94.4 per cent has been active in other fields too, beside of a considerable basic activity; the size of this is greater than that of the basic activity with the 44.1 per cent of the questioned people. In this way also our explorations have proved the well-known fact that the entrepreneurial readiness inevitably necessary for additioning new fields to their activity can be found with the agricultural enterprises.

In evaluating the activity done by the committed people the differing conditions should be taken into consideration, in the first step. With some of the agricultural cooperatives and General Cooperatives for Consumption and Trade the integration of small-scale production will decidedly become profitable due to the simultaneous effects of the size of the amount in trade, due to its degree of concentration and due to other factors. (This statement is valid also in the case of other branches.) Also the effect of such a factor will be manifested that will not make it possible for the enterprise in question to add a new field for their activities in another direction. The committed people belonging to the previous group look at integration of the small-scale production of pigs understandably in another way, than those farms where a priori only the selling of a small quantity will be considered and the small-scale production is of a decentralized pattern (spread in a large area), and the importance of the basic activity related to the other ones is small.

In present times also the agricultural enterprises characterized by the latter factors are forced in many cases to integrate the pig production partly due to being forced informally by the higher administration, partly by being stimulated by the compel resulting from their services rendered for the members (and being dissimilar to wages). The committed people can be enrolled in either of these two basic types and the difference in their behaviour can already been foreshadowed with a great probability. That is why the above

statements should be taken into consideration when the possibilities of further developing of the system of commitment are studied. In this work the first factor to be examined will necessarily be the behaviour of the agricultural enterprises in the time concerned.

The integration activity of the agricultural enterprises is allowed - and in the meantime is in a necessary way - to be influenced complying with the needs of the meat industry only by means of the commodity relations without any effect of force. As it has also earlier been mentioned it is necessary that in the possibly shortest time each of the enterprises in the meat industry should establish possibilities for undertaking in this field for the agricultural enterprises. In this way it can be hoped surely that commitment people unable or unready to take part in this work will separate themselves from the other ones.

Considering all of these it is best to compose the commitment fees of the following elements:

- a given sum paid for influencing the production in the necessary direction as far as the quantity is concerned;
- a given sum paid for organizing the trade (annual, quarterly and monthly figures within the range of prescribed values) and for organizing the purchase;
- a given sum paid for the work done in order to improve the quality (e.g. in a differentiated way for pigs in the 3rd class of quality and in higher classes according to classes and sub-classes).

A further source of income for the commitment people considering their activities in the field of integration may arise from sums paid as a result of their having connections with the small-scale producers (e.g. mixing of fodders, selling of fodders, transportation, selling of breeding animals, etc.). Having connections with the small-scale producers - stronger than it is now - will also in the future be a task for the commitment people.

Independently of the various cooperation forms resulting from the characteristics of the enterprises it is necessary that in every case of the partner relations the equivalency of exchanging the various activities should inevitably be ensured.

It must be stated that the agricultural enterprises will really be ready to undertake the activities of integration when they will take part in this work on the basis of equivalency and as undertakers. It should also be kept in mind that this equivalency nowadays is not ensured in several cases either for the meat industry. Opportunities to develop the relations are closely connected to the independent state of the enterprises in the meat industry, to the characteristics of their undertakings and to their development in the future; with other words: the connection depends on the possibilities and the real needs of the enterprise/s/ to establish commodity relations on a higher level of quality. The decision will be made - similarly to the addition of new field of activity to the previous ones with the agricultural enterprises - under the influence of the economic surroundings concerned.

**Table 1** The share of small-scale producers in the purchase of pigs by Trust for Livestock Trade and Meat Industry<sup>1</sup>

Year	Share of pigs produced by small-scale producers		of this: share of pigs purchased through agricultural co- operatives
	in the purchase per cent	and purchased through commitment per cent	
1983	45.7	83.0	84.9
1984	47.0	81.9	84.2
1985	49.2	96.8	83.1

<sup>1</sup>Source: Trust for Livestock Trade and Meat Industry.

**Table 2** Relations between the fodder cost of 1 kg gain in weight and the purchase price<sup>1</sup>

Year	Fodder cost <sup>2</sup>	Purchase price per 1 kg gain in weight <sup>3</sup>	"Coverage"	
			Ft/kg	
1981	23.90	35.50		11.40
1982	23.90	35.50		11.40
1983	25.00	37.00		12.00
1984	26.20	38.50		12.30

<sup>1</sup> Source: own calculation.

<sup>2</sup> The specific fodder cost (per 1 kg) of the gain in weight refers to the fattening period between the weights of 20 and 115 kg. The calculation is based on data from the professional literature, on the figures of composition of nourishments sold for small-scale producers by the Grain Trust and on their prices. The values of the specific fodder consumption taken from the professional literature have been modified following some peculiar method.

<sup>3</sup> Without any periodical surcharge.

**Table 3** Changes of price income per one fattened pig and of costs of basic material for fattening and of fodder<sup>1</sup>

Year	(Average) price on the free market of a piglet of 20 kg	Fodder cost during the period of fattening from 20 to 110 kg	Costs of fodder + costs of basic material for fattening	Price income "Coverage"	
				/Ft/head	/Ft/head
1981	1216	2268	3484	4082	598
1982	1216	2268	3484	4082	598
1983	1230	2372	3602	4255	652
1984	1230 <sup>2</sup>	2488	3718	4427	709

<sup>1</sup> Source: own calculation.

<sup>2</sup> In the time of writing this article there was no figure for piglet price in the free market in 1984 provided by the Central Statistical Office. This is why the average price for 1983 has been considered. The calculation for the last year needs further work to make it more exact.