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Meat production: dynamics of development and security with process equipment

Aim. To learn the state of production of meat foods in Ukraine and providing of meat processing enterprises a basic equipment. **Methods.** Approach of the systems to materials, abstractly-logical approach in relation to generalizations. **Results.** In 2014 in Ukraine 2359,6 thousand t meat is produced in slaughter-weight, however, usually, profile enterprises are equipped by the imported picked up thread equipment. A general of the fixed assets is satisfactory. **Conclusions.** A home Meat processing equipment yields to the best foreign standards after a technical level. A prospect consists in perfection of equipment of middle technical complication.

Key words: meat foods, meat, level of production, level of material well-being, technical level, technological equipment.

Raising of problem. Without regard to considerable power and sectoral variety of machine-building complex of Ukraine, profile enterprises of food engineer are not numerous and only partly provide the necessities of м'ясопереробки is BAT of «Полтавамаш», firm «ДУКО-ТЕХНІК», НВП «Техінсерв» and other. Swingeing majority of positions of equipment of such setting is supplied to Ukraine after an export, small enterprises are completed thus, mainly, by the picked up thread Meat processing equipment from the countries of Europe. If before the large foreign producers of equipment had the representative offices in Ukraine, then a now dominant tendency is existence of large engineering enterprises and firms that is specialized on complex building and rigging of new powers and reconstruction of present. These enterprises organize the import of equipment of foreign producers, machines that were in the use picked up thread in particular. Only a few firms present one foreign partner in Ukraine, at the same time, the profile of activity about 15 domestic enterprises («АГРО-3», «Матілекс-Україна», «Шаллер-Київ» and other) are import and introduction of equipment, and also grant of such complex services, as a technological planning, help in mastering of technological processes, studies of personnel, supply of ingredients and other

Aim of researches — to learn the state of production of meat and meat foods in Ukraine and feature of forming of park of the specialized technological equipment of domestic м'ясопереробних enterprises, and also to define the prospects of development of home engineer in the sector of development and production of equipment for meat industry.

Methodology of researches. Approach of the systems to researches of фактологічних materials, in particular statistical data and commercially-technical information; abstractly-logical approach is in relation to generalization of results of research and formulation of conclusions.

Results of researches. Without regard to all economic confusions, Ukraine is the large producer of meat, that in 2014 is produced 2359,6 thousand t in slaughter-weight, in 2013 is 2389,4 thousand t. Here and farther numeral values of indexes in 2014 — without an account temporally occupied ARE Crimea and parts of zone of realization of anti-terror operation. Thus, after 2014 the production of meat grew short on 4,4%. In 2014 it was exported meat and edible субпродуктів on a sum in 381 775,3 thousand дол. of the USA, that more than in 2013 on 9,6%. At the same time, in 2014 is it imported such commodities to the amount of 239230,9 thousand дол. of the USA, that three times less than, than in 2013 [7].

In 2014 beef 412,7 thousand τ is mine-out in slaughter-weight, that only on 0,5 thousand τ exceeds a level in 2013 (without Crimea). In 2014 part of beef presented 17,5%. As in 2000 did this index arrive at 45,4%, look after falling of production, population of cattle caused by a deficit, by an unstable situation in a country and other Besides, the proprietors of cattle avoided realization of animals the vibrations of currency exchange rate, hoping to wait till a price advance [5].

In 2014 the production of pork grew (comparatively with 2013) on 4,3%, attaining a value 742,6 thousand τ meat in slaughter-weight. Part of pork of сягла 31,4%, yielding to only the production of meat of bird (for comparison: in 2000 part of pork in the general volume of meat raw material presented 40,7%) volumes. The analysis of information testifies that a basic tendency at the market of pork in 2014 reduction of import and swift price advance was because of fall in the exchange of hryvnya.

In 2014 the production of mutton did not grow is 14,4 thousand τ in slaughter-weight (as well as in 2013). As in 2013 the values of this index calculated for all Ukraine, a job of cattle-breeders performance in 2014 it can consider positive — having regard to that Luhansk and Donetsk of area in 2013 together gave close 7% from a general production after this commodity group. In 2014 mutton and occupied 0,6% from a general production of meat volume, that some less than, than in 2000, when this index arrived at the value of 1%.

Does distinguish two large groups of enterprises of meat industry — first are powers from the coalface of animals and bird, second are workshops and plants the products of that are ready to the consumption or it belong to ready-to-cook foods of different degree of readiness [4]. Before a technological equipment for the coalface of animals and primary processing largely was home production. Awkward after a design, however exhaust, reliable machines and devices (boxing, pipeline systems, equipments and other) successfully used on the domestic enterprises of Ukraine and exported to other countries. Partly this rigging is used on purpose and presently.

Without regard to that the machine-apparatus park of meat industry largely consists of the picked up thread equipment of home and foreign production, indexes of rigging the fixed assets and them actual wear [1, 6] it is the best among all sectors of food industry (table).

Indexes of wear and recreation of the fixed assets of meat industry and food industry are on the whole by the state on 2013

Type of economic activity

Fixed of assets, %

During the last years a tendency is concentrating of coalface of animals on small enterprises, that stipulated demand on simple universal machines that does not require the presence of large shopfloors. In Ukraine the technological equipment of this profile is produced by BAT of «Полтавамаш», LTD. «Mera-Tex» and some other enterprises, suggestions are also enough from the numerous machine-building enterprises of Austria, Denmark, Netherlands, Germany, Poland and other countries.

An actual situation with the production of meat in Ukraine is characterized by an obvious defect toward meat of bird : part of meat of bird (after slaughter-weight) in the pattern of home production in 2014 presented 49,4%, that in 4,3 more than in 2000 It disturbs the producers of meat foods, as their traditional compounding foresee the only limited use of meat of bird, but foods with repressing content of meat of bird did not yet become usual for most home consumers. In 2014 1164,7 thousand τ meat of poultry was mine-out in slaughter-weight, that a more index is in 2013 on 6,2%. In 2014 home poultry farmers, finally, were able valuably to go out to the capacious and perspective market of EC : trade given to Ukraine foresaw a quota on supplying with meat of bird without an export duty in a volume 16 thousand τ . Home producers took advantage of this quota: most meat of bird was exported to Netherlands, large parties were supplied also to Germany, Romania, Ireland, to Estonia and other the Total volume of export of meat of bird in 2014 presented 175 thousand τ , that on 20% higher than indexes in 2013 [9].

By the large profile producers of the specialized technological equipment for the industrial poultry farming is mentioned higher BAT of «Полтавамаш», and also ПАО «Завод Ніжинсільмаш». The large industrial producers of meat of bird actively use also the modern high-performance machines of production of foreign firms Bayle (France) and other. In 2014 was 13,4 thousand t meat of crawls, that presented only 0,6% from all meat of for slaughter animals and bird produced in Ukraine, mine-out, thus repressing is part, mine-out the economies of population, that product 94,8% meat of this kind [7]. Credible reasons of diminishing to the production volume during the last year (in 2014 it was mine-out on 3,5% less, than in 2013) are appreciations of value of maintenance of crawls and worsening of economic position both personal economies and professional stock-raising enterprises. However such slump it does not follow to consider critical, as he will keep indoors for maximum limits vibrations characteristic for this type of economic activity : during the last decade the level of production changed scope from 13 to 14,2 thousand t meat on a year. If to compare production of meat of crawls volumes in 2014 and in 2000, then a difference will present exactly 3,5%.

At one time a course was taken on speed-up development of production of meat of crawls — accordingly, planning of high-performance powers came true, and machine builders mastered the production of the mechanized and automated lines counted on the large volumes of processing of this type of meat raw material. In development of the rabbit breeding scale enizootii became the on a way pre-arranged breach and hemorrhagic illness of crawls, and large powers remained uninvolved. Mostly are there requirements in an equipment for a coalface and primary processing of crawls [2] satisfied due to semiamateur structural decisions and unsystematic imported deliveries. The complete for slaughter lines of crawls are produced by a firm «Mevir» (Spain) and a few China enterprises, a cutting equipment for the division of carcasses supplies with Belarussian BAT «Брестмаш» and other foreign producers.

Without regard to the various economic and organizational measures, sent to the increase of the productivity of the home meat cattle breeding, necessity of producers of meat foods in basic raw material largely satisfied due to an import. Therefore large enough is a requirement in an effective equipment for the defrostation of the imported meat that is supplied frozen (or meat blocks). A typical method of defrostation of the frozen meat is treatment of him in the air environment of the special chambers-defrosters, equipped by the automatic systems of heating, moistening and forced circulation of air. Another way that is actively used by the enterprises of small power is unfreezing of meat in the stream of water [10].

Дефростаційні of chamber often organize in separate apartments and equip a different heater and vent equipment, at the same time a modern market offers the complex specialized devices of production of firms «GEA Food Solutions» (Netherlands), «Finncold — Komatos Oy» (Finland), «Lutetia» (France) and other

Most claimed among consumers are various sausage products. During 2014 was 258,2 thousand t of sausage products produced in Ukraine, that on 5,2 % less than in 2013 [7]. Do these indexes some differ in the report of company «AR-group» [3] it is 277,8 thousand t but 6% accordingly. One of principal reasons of such diminishing there is impossibility of the use of all production capacities. Reduction of producing of sausage products in 2014 comparatively with 2013 presented: in the Donetsk region — 26,5, in the Luhansk region — 54%. A fall in the exchange of hryvnya became another important factor of reduction of production volumes in relation to world currencies. It entailed rising in price of basic raw material and auxiliary materials (shells, ingredients and other) and induced the proprietors of enterprises to increase prices on the finished goods of sausage group. Through the increase of production and decline of solvency of population cost in 2014 enterprises increased the assortment of production of sausage products of more subzero price range, here a pattern of production of sausage products was such: the boiled sausages, sausages and small sausages — 64,4%; semismoked sausages — 17,3; boiled-smoked. It is also possible to forecast the further increase of part of cheap products [8].

Domestic enterprises from the production of meat, in particular sausage, equipped products, mainly, by a foreign equipment. Actually, all basic machines (vacuum, fillers of shells,) buy in abroad. A home equipment presents only insignificant part are the Poltava м'ясорізальні broomrapes, packing machines

from Oleksandrija, Dnepropetrovsk heat chambers and other, that with success use enterprises. Presently only separate can order a new high-performance equipment from Europe. More often businessmen leave the equipment picked up thread from there, and him a remaining resource depends on primary quality, intensities of exploitation to major repairs and from quality of repair. The imported standards practically fully satisfy the requirement of our переробників in an equipment for cutting of meat raw material (band and disk sawing, , , and other). Equipments for heat and climatic treatment of meat foods produce in Ukraine (kiers, heat chamber enterprises of BAT «ДУКО-ТЕХНІК», «Полтавамаш», «Техінсерв», «Інжемаш»). Without regard to it, a repressing market of equipment share in this segment is occupied by an import. A similar situation is with an equipment for salting treatment of meat raw material. If yet 10 ago this technique did 5 home producers offer, at least,, then presently completing a corresponding productive area is possible only the equipment of firms «Dorit-DFT» (Germany), «Inject Star Pokelmaschinen» (Austria), «Metalbud» (Poland) and other

A hard competition at the market of equipment for food industry does not assist to development of this segment of home engineer. For example, Dnepropetrovsk BAT of НВП of «Техінсерв» offers the icemakers of «Master Ice», but competition almost 30 foreign producers among that the confessed leaders of this segment are the German firms «HIGEL» are presented him, «Maja» and «Ziegra», Italian, Polish and other foreign producers.

In commercial advertising suggestions it is possible to blunder almost upon 20 brands of equipment for the production of ready-to-cook foods of chop group — «CRM» (Italy), «Deighton Manufacturing» (Great Britain), «Ia of Minerva» (Italy) and other Advertisement of home standards is not quite. The equipments of the limited nomenclature for the production of ready-to-cook foods of group of meat dumplings produce at the same time leading positions at the Ukrainian market of this equipment occupy Italian, China producers. Over 20 foreign producers offer casers meat and meat foods, among them are the known firms «HFE of vacuum systems» (TM «Turbovac» and «Henkovac, Netherlands), «Sealed Air (THE USA) », «ULMA of packaging» (Spain) and other At the same time.

Conclusions

Presently home industry of engineer is able to produce a reliable equipment for a coalface and primary processing of animals and bird, some equipment for the production of meat foods and other At the same time the home rigging considerably yields to the best foreign standards after and reliability, by the level of control system and other In relation to more cheap equipment, then in this segment more active Polish, Belarussian, Russian, Turkish and China producers. Consider that the prospect of home engineer for a meat production consists in determination of certain segments of equipment of middle technical complication (for example, broomrapes), above perfection of that it follows to work for maintenance of own niche at the home market of machine-building products and possible going into the markets of other countries. Technically difficult machines, in particular, fillers of shells, automatic of brine and other as yet it is expedient to import to the achievement of competitive world level domestic machine-building enterprises.

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