УДК 911.3

# Ihor Smyrnov, Oksana Shmatok

#### LOGISTICS IN AGRIBUSINESS' ACTIVITY IN UKRAINE

Agrologistics is one of the industries most dynamic in Western Europe. In Ukraine, agrologistics, in contrast to the overall and transport logistics, is in the initial stage of its development, but it is a very promising direction. Logistics are extremely effective, particularly in the case of agricultural holdings or large vertically integrated corporate structures in agribusiness. In Ukraine these are the «Nibulon», «Mironivskyy Hliboproduct», «Terra food», etc., as well as companies with foreign capital – AMACO, «Agro-Maas NV», «Kernel-Trade» and others. Development of agrologistics will help to bring the country's agriculture to a new, world level of its development and efficiency.

**Keywords**: logistics, agrologistics, transport, agricultural holdings, logistics experience, agriculture.

Ігор Смирнов, Оксана Шматок. ЛОГІСТИКА В АГРОБІЗНЕСІ УКРАЇНИ. Агрологістика — одна з галузей, що найбільш динамічно розвиваються в Західній Європі. В Україні агрологістика, на відмічу від загальної та транспортної логістики, перебуває на початковому етапі свого розвитку, але є надзвичайно перспективним напрямком. Логістика є надзвичайно ефективною, зокрема, у випадку агрохолдингів, тобто великих вертикально інтегрованих корпоративних структур у агробізнесі. В Україні до них відносяться «Нібулон», «Міронівський хлібопродукт», «Терра фуд» тощо, а також компанії з іноземним капіталом АМАСО, «Agro-Maas NV», «Kernel-Trade" та інші. Розвиток агрологістики дасть можливість вивести сільське господарство країни на принципово новий, світовий рівень розвитку та ефективності.

Ключові слова: логістика, агрологістика, транспорт, агрохолдинги, логістичний досвід, сільське господарство.

Игорь Смирнов, Оксана Шматок. ЛОГИСТИКА В АГРОБИЗНЕСЕ УКРАИНЫ. Агрологистика — одна из отраслей, наиболее динамично развивающихся в Западной Европе. В Украине агрологистика, в отличие от общей и транспортной логистики, находится на начальном этапе своего развития, но является чрезвычайно перспективным направлением. Логистика является особенно эффективной, в частности, в случае агрохолдингов, то есть крупных вертикально интегрированных корпоративных структур в агробизнесе. В Украине к ним относятся «Нибулон», «Мироновский хлебопродукт», «Терра фуд», а также компании с иностранным капиталом АМАСО, «Agro-Maas NV», «Kernel-Trade» и другие. Развитие агрологистики позволит вывести сельское хозяйство страны на принципиально новый, мировой уровень развития и эффективности.

Ключевые слова: логистика, агрологистики, транспорт, агрохолдинги, логистический опыт, сельское хозяйство.

Today in Ukraine in the sphere of agrilogistics there are about 35 major companies. For agriholdings is easier to implement the logistic approaches in their business because they have greater financial opportunities connected with the use of the company founders money, their own banks, credit unions and possibilities being able to attract foreign capital. It should also be noted that agricultural holdings are often engaged as in growing agricultural products as well as in their processing and food production. Under these conditions, there are a lot of opportunities to implement logistics systems and approaches to inventory management in supply-chain «supplier-manufacturer-customer».

Thus, one of the largest agriholdings of Ukraine PJSC "Myronivsky hliboprodukt" (MHP) also has its own logistics chain in the production system. This group of companies was created in 1995, now it consists of 19 companies, which are incorporated in the production capacity of the whole process chain of poultry, crops and other agricultural activities. PJSC "MHP" occupies about 40% of Ukraine's broiler meat market and has trade marks as "Nasha Ryaba", "Certified Angus", "Foie Gras", "Legko". It has four broiler farms, two farms with livestock breeding and egg production, three feed mills and a number of silos for storage of sunflower oilseeds, cereals and oilseeds. In each of the poultry farms processing plant operates 11 distribution centers in Kyiv, Cherkasy, Kherson, Dnipropetrovsk, Vinnytsia, Donetsk, Ivano-Frankivsk regions and Crimea and 2600 branded franchise outlets are provided timely with produced goods thanks to the 500 trucks with refrigerators. Additional activities are gardening, crops and

© Smyrnov I., Shmatok O., 2013

agribusiness.

It should also be noted such company as "Agro Invest Ukraine" which has only five years of presence in Ukraine. This company was able to increase its land holdings to 40 hectares. All profits of the company currently are working on future outcome – as in the future it intends to increase its land bank of 120 hectares and build a network of elevators in Ukraine. Overall strategic vision of "Agro Invest Ukraine" is to build one huge elevator for each the land bank of 15-20 hectares. The company is also involved in the production of forage crops for livestock and it owns two farms. The Supervisory Board Chairman of the company "Agro Invest Ukraine" Zeljko Ertseha " considers that no elevator and no logistics there is no sense to develop agriculture.

Agriholding "NIBULON" was created in 1991 as Ukrainian-Hungarian-British enterprise. In 2003 the company changed its legal form to "NIBULON limited"("NIBULON Ltd"). For many years, it is a manufacturer (21 agricultural enterprises) and exporter of grains and oilseeds and also - the only vertically integrated company in Ukraine, which provides control over all links of a "field-port chain", which includes growing, harvesting and transporting (with using of their own equipment), storage (with total elevators capacity of 453.5 thousand tons) and shipping through a freight terminal with using of its own fleet to transport the harvest (company's fleet consists of 28 barges and 5 tugboats). Representative offices of the company are in Kharkiv, Poltava, Lugansk, Mykolayiv, Cherkasy, Khmelnytsky, Vinnytsia regions. The main strategic goal of "NIBULON" is to create locked logistics cycle - from agricultural production and processing to delivery and sale to the final consumer,

including foreign, and as well to achieve effective vertical integration in its agribusiness. Therefore this company builds elevators on riverbanks next to major ports, which enables efficient and quick logistics. Now "NIBULON" includes 22 logistics objects that are terminals for transshipment of grain and oilseeds by river transport. Basically they are on the banks of the Dnieper River - the largest river in Europe and Ukraine. In July 2012 the company has built in record time (three months) 22-nd terminal "Pereyaslav" in Pereyaslav-Khmelnitsky district of Kiev region. This is the second "NIBULON" terminal in Kyiv region (first was "Denyhivskiy" in Tetiyiv district) and third terminal – in Kagarlyk area on riverbank just opposite Perevaslav-Khmelnitsky. In the construction of the terminal "Pereyaslav" 170 mln UAH was invested with expected payback period – 7-8 years. It is large terminal designed to receive 8 thousand tons of grain and keeping 75 thousand tons of grain daily and shipping daily 10thousand tons of grain with river transport. To implement a large-scale investment projects "NIBULON" attracted financial resources from such international institutions as the World Bank, EBRD, IFC and the governments of Denmark, Sweden, the Netherlands, the United States through their export credit funds.

The goal of company logistics is to recover the Dnieper status as one of the most important transport arteries in Europe. It will be a powerful stimulus for the economy development of several regions of Ukraine, including Kyiv, Poltava, Kherson and other areas. Considering that river transport is the cheapest one its revival will reduce the retail prices of many product groups. In addition, the shift of traffic on waterways will decrease the load on the road and rail infrastructure. So if from Pereyaslav by barge down the Dnieper will go 250 thousand tons of grain this would mean no traffic of several thousand trucks. If to trucks flows are added in the future active passenger flows it will restore transport activity across the whole Dnieper - river and will give thousands of jobs in associated infrastructure and related industries. No wonder that considering successful agrilogistical experience of "NIBULON", governors of Kyiv, Poltava and Kherson regions requested the Prime Minister of Ukraine to include to the list of national restoration projects cargo and passenger shipping along the Dnieper. According to O. Vadaturskyy, CEO of the "NIBULON", in 2013 the company plans to continue its active development, including the implementation of a large-scale project to revive the Dnieper and the Southern Buh as key river shipping arteries of Ukraine. Firstly, it plans to increase twice the amount of river transportation of grain (from 800 thousand tons in 2012 to 1.5 million tons in 2013). Secondly, beginning from 2013 the company will resume construction of sea and river transshipment terminals. For example, now with of the Kiev and Kherson regional administrations "NIBULON" is working on question of land allocation for construction of such facilities at the Dnieper and the Sea of Azov. Thirdly, the company plan to develop the shipbuilding business activity. So in 2013 one of the most productive floating cranes in the Black Sea basin will be put into operation. Crane's

construction is carried out now at the Constancia shipyard in Romania. After that we can talk about the annual handling by company's capacity over three million tons of grain. Also there are plants to begin reconstruction of NIBULON shipyard, which the company acquired in 2012 in port of Mykolayiv. After this renovation is completed in 2014, the company plans to start production of whole – complete cargo ships. The NIBULON medium-term plans include the construction of speed passenger hydrofoils. It will be a new ideology of passenger traffic as ships will be equipped with new appliances and will vary considerably to the best site from that of many familiar Soviet "rockets."

Another company that develops quickly in the logistics sphere of Ukraine is AMACO (American Machinery Company). It began operations in Ukraine in 1992 and now is part of a large international network of companies operating in the U.S., Europe, Africa and the Middle East. AMACO main activities include technological solutions in the areas of agriculture, construction equipment and commercial vehicles. AMACO partner's network has row 33 dealerships and 29 regional centers in the CIS. Other powerful agrilogistics actors in Ukraine such as «Agro-Maas NV», «TERRA FOOD» and others are also agricultural holdings, which represent single closed system of production. Another company "Kernel-Trade" (created in 2001 under the name "Unigrain" Ltd.) specializes in procurement of grains and oilseeds, their logistics, processing, exporting. The company is presented in 13 regions of Ukraine and includes which consists Prykolotnyanskyy and Poltava oilseed factors, 23 elevators (with total storage capacity 1.7 million tons), three autotransport companies. In 2006 the company bought the assets of "Eurotech", agriholding which had 25.8% of oil market are 15 % share of sunflower seeds market of Ukraine.

Large operators on the market of agricultural logistics are such companies as JSC "Ukrainian Agrarian Investments" (Russian company "Renaissance Capital), JSC" Rise "( in the market since 1992, city of Rivne). Ukraine has borrowed considerable experience in inventory logistics management, including experience of metal storage construction. For example production of metal grain storage facilities are now in Mikolayw (enterprise "Project Contact Service", firm "Lord," "Nibulon Ltd"), in Poltava (JSC "Karlivs'kyi Machine Works" ) in Kyiv region - in Obukhov (company "UK-Supply") and others. Metal storages of foreign production acquired extensive use in Ukraine. For example Mfs / York / Stormor – one of the most famous manufacturers of metal storage in the U.S. has built a repository for JSC "Agro-Soyuz" in Dnipropetrovsk region as well as for company "Kyiv-Atlantic" in Kyiv region. Using foreign experience of storing grain in bags-sleeves started lately. This technology of grain storage in bags - sleeves was developed by Argentine company "Akron." This technologies for grain storage are used by a number of countries like the U.S. and Canada. Experience in storing grain under this technology exists also in Ukraine (in Kirovograd, Kherson and Khmelnytsky regions).

For example in Kirovohrad region Canadian-

Ukrainian project is under operation in order to study the experience of storing grain in special bags-sleeves in Ukrainian agriculture condictions. Today Ukraine is actively building warehouses of high quality, with participation of foreign technology and investors. For example, Ukrainian company "Coast group" has built the new logistics center in Kyiv region, offering products storage services with a certain temperature regime, and the Belgian company «Agro-Maas NV» plans to build in Kremenchuh cross-docking terminal for grain storage with capacity of 30 tons and with possibility of discharge to river transport 700-800 tons per hour. It should also be added the construction of elevators in cities Globino and Romodan in Poltava region with using Danish and U.S. equipment. However, warehouses capacityfor storage in Ukraine are still insufficient and that leads to losses of grain yields about 8 million tons per year with the production of 30-40 million tons annually (that of 20% of gross harvest). In Europe and America these losses represent only 1-2%. Significant losses occur during storage of other agricultural production, for example in potato and fruit-vegetable subcomplexes they constitute 40-50% of production, sugar beet - more than 30 %, which, in our opinion, is clear evidence of storage space lack in general and lack of facilities that create appropriate storage of agricultural products in particular (storage of agricultural products in chilled and frozen conditions). In Japan, for example, to keep the high quality of agricultural products logistics centers are created and they coordinate the activities of products storage in frozen form, namely: first they conduct precooling of finished products, then their freezing and transportation to the end consumer. As for the modern means of special transportation, only some big Ukraine companies can afford such weekles with GPS navigators, refrigeration equipment etc. (for example, JSV «Myronivsky hliboproduct»).

As for different agrilogistics needs Ukrainian producers do not produce the proper equipment, it must be bought up from abroad, at high prices plus high customs duties. Complementarity of industries leads to material supply optimization and, thus, to volume of stocks optimization. Ukraine has also adopted this experience: the country has a management and productin company TERRA FOOD, which is engaged in production and processing of grain and sugar beets, livestock and food production. In this company suppliers of raw materials determine residues stocks and offer optimal supply schemes that suit processors.

### References:

- 1. Oliynyk Y.B., Smyrnov I.H. Mizhnarodna logistyka: Navch. pos. / Y.B.Oliynyk, I.H.Smyrnov. K.: Obriyi, 2011. 544 p.
- 2. Kalchenko A.H. Osnovy logistyky: Navch. pos. / A.H.Kalchenko. K.: Znannya, 1999. 240 p.
- 3. Vadaturskyi A. Klub ekspertiv / A.Vadaturskyi // Komentari. № 50. 28.12.2012. P. 6.

#### **Summary**

## Ihor Smyrnov, Oksana Shmatok, LOGISTICS IN AGRIBUSINESS' ACTIVITY IN UKRAINE.

Logistics is a new scientific and practical direction with high efficiency, which has developed in the world and in Ukraine in the late twentieth century. Logistics is divided into many sectoral and functional areas, including one of the most promising – Agrilogistics, that involves the application of logistics theory and practice in the field of agribusiness. The latter is known to include sectors such as manufacturing (agriculture), proccessing (food industry), trade (consumer). They are very closely related to various types of internal relations - industrial, technological, economic, informational, financial, labor and so on. Because these types of links and the corresponding flows is the subject of study logistics, then Agrilogistics task is to investigate and optimize all types of internal and external linkages of agriculture, including the relations with the supply and distribution, as belonging to the agribusiness as a whole and to its individual units. In a market restructuring of agriculture in Ukraine special role is played by agricultural holdings powerful vertically integrated corporate structures in agribusiness. Examples of such companies in Ukrainian are "Nibulon", "Mironivskyy Hliboproduct", "Terra food", etc., and with the participation of foreign capital - AMACO, «Agro-Maas NV», "Kernel-Trade" and so on. In their business activities logistics plays an important role, which can be seen from the experience of "NIBULON", that created the logistic chain of production, processing and distribution of grain products, including for export. This chain includes more than 20 elevators, that are located on the banks of the Dnieper and Southern Bug rivers. Since" Nibulon" created a river fleet for transportation of grain, together with the development of agrilogistics it helps to restore freight shipping on the largest rivers of Ukraine. Thus, the activity of agricultural holdings in agrilogistics in Ukraine does not only fulfill business functions to improve efficiency and profitability, but also contributes to the economic development of certain regions and the entire economy of Ukraine.

**Keywords:** logistics, agrologistics, transport, agricultural holdings, logistics experience, agriculture.