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## ANALYZING APPLICATION INFORMATION TECHNOLOGIES IN TECHNOLOGICAL AND TECHNICAL SYSTEMS IN AGRICULTURE

**Kuznetsova O.Y., c.t.s., associate professor**

**Velyka M.I., student**

*(Dnipropetrovsk State Agrarian and Economic University)*

*This work imaged application of use the modern software in agricultural production system. Information technologies are analyzed situations and possibilities in the farms*

**Introduction.** Information Technologies (IT) have played a big role in developing the agricultural industry [1]. Today it is impossible to imagine the agricultural industry without new technology. As about using information technology is utilizing computers along with telecommunication equipment for the storage, retrieval, transmission, and manipulation of data, among other tasks, which are aimed to improve the efficiency of different sectors. With the advancement of IT, other sectors benefit from it as well since it can be used as a tool for improving efficiency and overall productivity.

Successful integration of IT in different sectors has made it possible for people in the IT industry to make changes which can help other sectors, such as agriculture, as well.

New technologies lead to increasing profits, under condition of using the complete resource. It is known that agriculture nowadays is an essential from the electronics, exploitation, econometrics and other branches of science, which are used for researching and growing agricultural plants and domestic animals [2].

In case of the main arm of this article is analyzing influence and discovering applications, which are used in information technologies in agricultural systems.

**Main part.** It is known, agricultural technological systems respond to the class system-process. They are systems type as “human – subject to labour – the means of labour – information – environment” [3]. Information software is an important component such systems. Nowadays, the vast of software is appearing with the aim of using it in agriculture. Let’s examine some of them:

SheepBud analyses operations with sheep as a part of the whole farm. As about SheepBud, a computer software program designed to provide you with a year-end enterprise analysis of sheep operation.

The analysis is done on a production year basis rather than a calendar year or tax year. This allows making business decisions about the enterprise with information that truly represents its contribution to farm profitability. The analysis looks at a

production year which is the cycle of events from one lambing season to the next. This will most likely cover more than one calendar and tax year. A production year more accurately measures the profitability for a specific production cycle, instead of parts of two different production cycles which may occur in a tax or calendar year analysis. An added benefit of SheepBud is the year-end summary feature [4].

There is also SDSheep which analyses the livestock productivity. It is an easy way to document sheep breeding records, identification, treatment records, shearing records, show records, animal movements, income and expenses [5].

FarmManager stores all data from the climate and watering computers, combines all this data and presents it in clear overviews, graphs and tables. In fact this software allows automated climate, feed and biometric processes form a valuable source of information in a farm. The software is provided information about the environment the animals are living in, their individual behavior, and the feed and water consumption. The result is a wealth of management data that allows to steer towards improvements based on facts and figures [6].

A wide using information technologies are discovered in technical systems of agricultural area, which are corresponded to system-subject and considered as the system type as “machine” or “machine – environment”. For example, world-class precision planter monitors the PM Series of corporation Dickey-John. These monitors become important and necessary devices [7].

The drill seed monitors PM300E and PM332E which produced by Dickey-John began the main and necessary devices for farmers, which are provided high quality results during seeding grains such as corn, sunflower and other crops.

The drill seeds monitors is made constantly control of entering the grain into the ground, and also control and condition of drill seeder itself. Sensible elements which are in the corners drill seeder and send information to the monitor about any problems or incorrect falling grains. The monitor in the cab constantly control seeding the grains into the ground. So giving make it control of drill-seeder more comfortable, accuracy, what lead to increase of productivity

**Conclusion.** To come to conclusion, in the end we can say that application of information technologies are outlook direction of action agricultural systems. At the same time it is necessary to remark that wide inculcation of technologies in Ukraine there is next range. The main obstacles are high value of technologies; difficulty of keeping domestic animals under condition of new technologies, the urgent problem is timely providing; the service of software, which intends the deep knowledge of the engineer and the subordinate staff.

However, in spite of these limitations, the valuable advantages are the increasing of productivity, rational use recourses, decreasing negative consequences of farming.

Considering remembering above, with the point of the evolution developing of agricultural systems, we can say the IT is finding the way in agricultural sector. The

software which developed leads improvement of process makes decisions (by having the necessary information, farmers can make better and more informed decision concerning their agricultural activities), facilitates the process of solving problems of different directions and operational and long-term planning tasks.

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## Анотація

### **Аналіз застосування інформаційних технологій в технологічних та технічних системах сільського господарства**

Кузнецова О.Ю., Велика М.І.

*В роботі розглянуто застосування сучасного програмного забезпечення в системах аграрного виробництва. Проаналізовано стан питання та перспективи розвитку інформаційних технологій в фермерських господарствах*

## Аннотация

### **Анализ использования информационных технологий в технологических и технических системах сельского хозяйства**

Кузнецова О.Ю., Великая М.И.

*В работе рассмотрено применение современного программного обеспечения в системах аграрного производства. Проанализировано состояние вопроса и перспективы развития информационных технологий в фермерских хозяйствах*