

4-26-2021

CALENDAR PLANNING IN THE CLUSTER MANAGEMENT SYSTEM OF ENTERPRISES OF THE AGRO-INDUSTRIAL AND COTTON-TEXTILE COMPLEX

S.M. Kasymov

Department of Economics of Industry and Management, TCTI

S.S. Kasymov

Department of Economics, TSTU

N.S. Kholmukhamedova

Tashkent State University of Economics

R.S. Kholikova

Department of Economics of Branches, TSUE

Follow this and additional works at: <https://uzjournals.edu.uz/iqtisodiyot>

Recommended Citation

Kasymov, S.M.; Kasymov, S.S.; Kholmukhamedova, N.S.; and Kholikova, R.S. (2021) "CALENDAR PLANNING IN THE CLUSTER MANAGEMENT SYSTEM OF ENTERPRISES OF THE AGRO-INDUSTRIAL AND COTTON-TEXTILE COMPLEX," *Economics and Innovative Technologies*: Vol. 2021 : No. 2 , Article 5. Available at: <https://uzjournals.edu.uz/iqtisodiyot/vol2021/iss2/5>

This Article is brought to you for free and open access by 2030 Uzbekistan Research Online. It has been accepted for inclusion in Economics and Innovative Technologies by an authorized editor of 2030 Uzbekistan Research Online. For more information, please contact sh.erkinov@edu.uz.

CALENDAR PLANNING IN THE CLUSTER MANAGEMENT SYSTEM OF ENTERPRISES OF THE AGRO-INDUSTRIAL AND COTTON-TEXTILE COMPLEX

Kasymov S.M.

d.e.s, Professor of the Department of Economics of Industry and Management, TCTI

Kasymov S.S.

c.e.s, Associate Professor of Economics, TSTU

Kholmukhamedova S.S.

Independent Researcher, TSUE

Kholikova R.S.

Assistant teacher of Department of Economics of Branches, TSUE

Abstract: The paper examines methodological approaches to drawing up a production plan, regardless of the level and hierarchy of cluster planning. The authors note that plans are not only voluminous, such as long-term, current production plans, but also necessarily operational-calendar, i.e. including the distribution of volumetric indicators in time - according to planned periods, as well as in space - according to cluster technological stages (workshops, sections) of production of an agro-industrial enterprise, and within the enterprise along a single production and technological chain of production.

Keywords: cluster scheduling, schedule, scheduling stages, enterprise, cluster, multi-operational process, schedule optimization, multi-operational technologies, workshops, sections, teams.

Introduction

As it is considered, when modeling strategic production planning at any of the organizational and production stages in the cluster management system, it is planned: long-term perspective (plan for 5 years or more); short-term perspective (plan for 2-3 years); short-term current annual (plan for 1 year); current operational production (plan for a year broken down by quarts of the year); current operational calendar (plan for a quarter broken down by months); calendar planning (plan-schedule distribution of resources in time and space by months, decades, weeks, days and so on.).

The production plan, regardless of the level and hierarchy of cluster planning, is not only a volume plan, such as long-term, current plans, the distribution of volume indicators in time-by intervals of the planned period in time, year, quarter, month, decade, day, as well as in space - by cluster agro-industrial enterprises, by farms, and within the enterprise by a single production and technological chain, that is, by production units of the head cluster and the participants that are part of the cluster.

Research methodology

Mainly, the methodology of cluster calendar planning should be carried out in two stages.

At the first stage, an enlarged schedule is drawn up (year, quarter, month) and the distribution of the work of the production program to all production units that are part of the cluster structure.

In the second stage, the enlarged schedule is distributed in the following in a shorter period of time, month, decade, day, in connection with the main divisions connected by the production and technological chain and by the terms of procurement, primary and secondary processing of raw materials and the release of finished products and their delivery to consumers.

Literature review

The tasks of formation and functioning, as well as the introduction of the cluster method in their management of the competitiveness of enterprises are devoted to the works of foreign scientists of economic science such as: A. Marshall, M. Porter, A. Weber, S. Rosenfeld, P Krugman, D. Sollier, E. Dahmen and others.

In addition, the features, types and principles of cluster development have been widely studied by researchers from the CIS countries. Russian scientists who have deeply studied the theory of economic clusters are A.N. Oleinik, N.V. Smorodinskaya, D.D. Katukov R.I. Kapelyushnikov, E.G. Karpova, I.N. Kolosovsky, A. B. Khudkovsky, I. I. Raskin, E.V. Ivanova, Yu.V. Yaremenko.

Research on the promotion of the cluster approach in the cotton-textile industry of Uzbekistan was carried out by SS Gulyamov, NM Makhmudov, MA Rakhmatov, S. M. Kasymov, S. Salikhov, A. Sh. Bekmuradov, D. K. Akhmedov, Sh. I. Mustafakulov, M. Tillyakhodzhaev, D. Kurbanova, D. Mirzakhililova, G. Zakhidov, R.A. Gulyaev, A.E Lugachev, Kh.S.Usmanov and others.

The available studies, despite the great scientific and practical significance, have a fragmentary feature that manifests itself in the consideration of one or several regulatory mechanisms, which confirms the need for further research in the field of state regulation of the agricultural sector of the economy in modern conditions of inter-farm relations along the technological chain of production of finished products based on the cluster.

It should also be noted that, the aspects of textile clusters in the formation of integration and increasing the efficiency of the industry have not been deeply studied. All this testifies to the urgency of this problem and requires its solution.

Analysis and results

There are various types of operational calendar planning of production, when they operate with aggregated information on subjects and in a time interval on production units, as well as on technical and economic indicators, information for raw materials of the agro - industrial cluster.

General cluster calendar task for enterprises of agro-industrial, cotton and textile clusters, information is aggregated at the level of the type, selection type and

grade of raw materials and their corresponding normative technical and economic indicators.

Another basis of distribution - spatial, is the organized structure of production and the production technology of the final product output.

Here, as a rule, information is aggregated at the level of cluster agro-industrial enterprises, although this somewhat worsens the results of tasks, but it is acceptable, and in some respects even necessary from the point of view of reducing the dimension of tasks.

At the same time, the more detailed the information is at the level of the main enterprises of the cluster (or enterprises of subclusters), with a narrow product range, such as farms, wineries, cotton and textile enterprises, candy factories, and others, the more important it becomes to determine the sequence of operations in the cluster technological chain of manufacturing finished products.

As I. P. Shubkina notes, "Those of the tasks of modeling the production plan, in which both these sides are present, are dynamic" [3, p. 43] Conversely R. Bellman [4, p. 12] believes that: "The adjective" dynamic " indicates that we are interested in processes in which time plays a significant role and in which the order of operations can be decisive."

These tasks were the most extensive class of tasks in modeling the planning of enterprises of the agro-industrial cluster, which is its basis.

According to the generally accepted terminology, they can be attributed to cluster calendar planning and production regulation. Since the creation of a calendar schedule in the cluster planning system at the lower level is associated with the determination of the processing time of raw materials (grapes, raw cotton) and the release of finished products at the cotton factory, winery.

Let's look at this process in more detail for the head enterprise of the grape and wine cluster. The on-farm activity of the main grape enterprise begins with the preparation of an annual production program based on a long-term plan for the grape-wine, cotton-textile clusters.

The annual production program is distributed by quarters, and the quarterly program - by months (decades) and ends with a cluster calendar planning of production in the future we will call-calendar planning (CP) divides the planned task into its component parts, determines the specific work to be performed (by terms) and the place of execution.

The ultimate goal of the CP is to create a task - a ten-day, five-day, shift-daily-for each or a group of jobs (a group of interchangeable jobs, an aggregate, an automatic production line) and a shift task.

Here it is directly connected with the operational regulation (dispatching) of production, which consists in the organization of accounting and constant adjustment of plans based on their results.

The direct connection between the quarterly, monthly, decade program and the shift-daily task is possible only in the simplest case, when the company's activities can be represented in the form of a single-subject production line.

Therefore, in the conditions of highly specialized mass, large-scale production, CP does not cause any special difficulties that arise with a multi-nomenclature with a multi-operational nature of production.

For the enterprises of the grape-wine and cotton-textile industries, specific features are characteristic of the enterprises of the industry or some of the processing industries of the agro-industrial complex and the CPC.

The solution of the cluster calendar problem depends on the initial to final stage of quality throughout the cluster production and technological cycle of the products. The improvement of these indicators directly affects the production and economic activity of the enterprise

The main task of dehqan farms and industrial enterprises is to preserve or improve the natural properties of grapes, cotton, depending on the optimization and modernization of the technological process at all stages of the production and technological chain of production of final wine and cotton products.

Cluster scheduling is directly related to the technological process, i.e. the choice of optimal technological control parameters. Here you can demand from the optimization of the technological process - the conditions of the calendar task - an increase in productivity - equipment for processing raw materials or improving the quality of products. Then the task of calendar planning is formulated as follows: to make such a calendar plan for processing raw materials and the release of final products on the specified technological equipment, so that a uniform output of finished products is achieved at certain technical parameters.

Therefore, one of the sub-goals of calendar planning is the optimization of the processing of raw materials of the technological process, which includes the use of both technological equipment and the use of material and labor resources, primarily the agricultural raw material itself. Calendar planning is also associated with the cost market estimates of the final product.

The complexity of the problem at the head enterprise of a cotton-textile or agro-industrial cluster is due to the influence of the following important factors common to various cotton-textile and agro-industrial cluster enterprises of the industry:

- 1) organizational and technological relations in production;
- 2) continuous-discrete technological cycle of primary processing of raw materials in a single and multi-stage production process;
- 3) physical and mechanical properties and characteristics of raw materials;
- 4) limited composition of technological equipment and its use;
- 5) the probabilistic nature of the availability of assortment raw materials;

6) complexity of processing of different grades and types of raw materials on the same type of technological equipment;

7) the relationship of resources and the production process to the time scale;

Consider the influence of all these factors.

The first factor determines the movement through all stages of the cluster production process – crop production, harvesting, primary, secondary processing of raw materials before the release of final products and sales to consumers before pressing the portage. accordingly, the fibers.

The second factor indicates that the problem of work distribution also arises in continuous-discrete production. The seemingly trivial calendar task is complicated by the fact that for a continuous production process with discrete elements in a cluster planning system, it is necessary to determine the interconnectedness of the planned work both in space (individual limits) and in time (day, day, decade, etc.).

The third factor is specific to the plant, since depending on the state of humidity and clogging (especially humidity), the sequence of starting for processing raw materials is modified, for example, raw cotton with high humidity, especially low (3rd and 4th) grades, cannot be stored for a long time, despite various organizational work (suction of moist air, laying tunnels, ventilation, etc.).

The fourth factor means that modern technological equipment is in some cases used by insufficiently qualified workers.

The fifth factor shows that the processing of agricultural raw materials is planned for two operational periods, for example, for cotton in the first, the remnants of the previous year's raw cotton crop will be processed, and in the second, the expected harvest of the next year. Hence the difficulties of technical and economic analysis. operational and production planning.

The sixth factor is related to the fact that the use of limited resources in various organizational and production conditions takes place over time.

The seventh factor indicates that. that the task of cluster calendar planning, as a rule, is typical for many rural farms (cotton mills, vegetable growing, viticulture, etc.).

Conclusions and recommendations

To conclude, that the methods of solving the tasks of CP at the enterprises of the agro-industrial complex and the cotton and textile industry are similar or integral, in the cluster system of planning and management of enterprises.

References:

1. Porter M. Clusters and the new economics of competition. // Harvard Business Review. Nov / Dec, 1998, vol. 76, issue 6. -P. 77.
2. Tsikhan T.V. Cluster theory of economic development. // "Theory and practice of management", 2003, No. 5.

3. Bellman R. Dynamic programming. M.: Progress, 1969
4. Shubkina I.P. Modeling of the decision-making mechanism (production management) M.: Nauka, 1976, p. 275.
5. Modeling the planning processes of the cotton industry. Tashkent. "Uzbekistan", 1983, p. 237.
6. Tolstykh T.O. Formation of infrastructure for the creation of innovative clusters as a tool for the competitiveness of industrial enterprises.
7. Dunenkova E.N. Formation of innovative clusters based on cluster initiatives // Bulletin of the University № 9, 2015. - 30-35 p.
8. Kasymov S.M., Sapaev D.Kh., Kasymov S.S. System cluster modeling in strategic production management at viticulture and winemaking enterprises. Monograph. - T., 2019.
9. Kholikova R.S. Clusters in Cotton processing complex: Do they have Positive or Negative effects? Economics and Innovative Technologies. Volume 2020, Issue 6// <https://uzjournals.edu.uz/iqtisodiyot/vol2020/iss6/3/>
10. Kholikova R.S. Multifactor econometric modeling and forecasting of cotton fiber production in Uzbekistan. Economics and Innovative Technologies 2020 (2), 3
11. A.Yadgarov. Insurance of agro-industrial complex enterprises. Monograph. T.:2020 y. 135 pages.
12. A. Yadgarov. Promising directions of insurance of enterprises of the agro-industrial complex. "Caspian Research Institute of Arid Agriculture" "Modern trends in the development of the agrarian complex" of the International Scientific and Practical Internet Conference. May 11-13, 2016 p. Salt Zaymishche, Astrakhan region, Russia.
13. A.Yadgarov. Ensuring food security and insurance protection based on increasing the volume of agricultural production in the context of a pandemic. "Finance and Banking" (electronic scientific journal). Tashkent. 2020 y. № Pages 2, 152-159.