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Organisation of labour remuneration during grain harvesting in agricultural enterprises

Abstract. Modernisation of scientific recommendations on remuneration of labour for harvesting grain crops in enterprises is relevant, as it can potentially contribute to higher yields, higher gross harvest, and labour income of employees, reduction of losses and improvement of grain quality, and more efficient use of technical and human resources. The purpose of this study was to substantiate the scientific principles of organising labour remuneration for grain harvesting in agricultural enterprises, considering the current changing conditions. The following methods were employed in the study: abstract-logical, monographic, statistical-economic, and systematic approaches. The study covered the organisational foundations for harvesting grain crops in enterprises, which begin with the formation of labour collectives and their technical support, work and rest regimes, and keeping a summary record of the working time of the personnel involved. The study established the regulatory aspects of labour remuneration regulation and application of

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the tariff scale, additional payments and allowances, and increase of tariff rates of remuneration for certain three categories of employees of enterprises engaged in grain harvesting: machine operators, drivers, and employees in receiving units. It was proved that remuneration for most employees in agricultural enterprises is formed based on the tariff system of remuneration, which fully ensures the differentiation and validity of wages depending on the quantity and quality of work performed. The study proposed the key methodological approaches to labour organisation and formation of the tariff scale and corresponding hourly wage rates for grain harvesting, which should be included as content in collective agreements, regulations on remuneration, and regulations on bonuses in agricultural enterprises. The current tariff scale offers the possibility of raising inter-grade coefficients to strengthen the incentive function of wages in grain harvesting. The study considered possible extra payments and allowances, bonus payments, which are recommended to be applied selectively to further stimulate the production staff of the enterprise to better quantitative and qualitative indicators of their work. The practical significance of the findings of this study lies in the possibility of their direct use in agricultural enterprises to provide financial incentives to production personnel for productive work in harvesting grain crops, on which the economic condition of farms largely depends

Keywords: salary; tariff system; production personnel; collective agreement; social and labour relations; agribusiness

INTRODUCTION

The cultivation and harvesting of grain crops at enterprises and subsequent processing of grain is of utmost importance for providing the population with basic and affordable food products (cereals, flour, bakery and confectionery products, etc.). Grain farming is a powerful segment of agribusiness in Ukraine, which largely determines the socio-economic development of rural areas and the country's food security, living standards and employment, providing processing companies with raw materials and livestock farming with feed. Having increased its gross grain production in recent decades, Ukraine has joined the world's top grain exporters, with demand for grain growing every year as the world's population grows and its purchasing power improves. The issue of rational labour organisation and financial incentives for employees during grain harvesting is a topical issue for every agricultural producer every year. Each season, it is necessary to consider the condition of grain crops, current yields, availability of technical, human, and service support, etc. Therefore, harvesting grain crops with the least losses and the best grain quality, as well as efficient use of technical and energy resources, will depend on the correct organisation of remuneration of production personnel at enterprises. These issues can be resolved through the

development of the relevant scientific and methodological principles of labour remuneration in agricultural enterprises.

Many Ukrainian researchers have addressed the scientific substantiation of the areas of improvement of material incentives and labour remuneration organisation. Specifically, T. Oliinyk *et al.* (2024) studied labour motivation in agriculture and proposed ways to improve it, where the key role is played by the wage rate and the possibility of increasing it. The researchers found that a well-established material component of labour motivation will increase staff productivity and considerably affect the performance of agricultural enterprises. T. Kosova *et al.* (2021), having considered the procedure for regulating labour remuneration in the agricultural sector of the economy, proved the need to de-shadow labour relations and accounting and control support for the relevant wage payments, as well as the formation of a social package for staff to improve the motivational mechanism in agricultural enterprises. Scientific developments on labour remuneration in the agricultural sector of the economy were also the subject of attention of L. Marmul *et al.* (2024), who noted that labour productivity determines the efficiency of management, and therefore the wage rate, and therefore it is a crucial object of

accounting and audit. For this, each enterprise must have a personnel policy, rational planning and use of personnel, proper labour organisation, and regulation of labour relations.

T. Perevuznyk & V. Holovachko (2019), having identified the advantages and disadvantages of using different forms of remuneration, proposed to choose the relevant remuneration system in agricultural enterprises in a balanced manner, since to improve the mechanism of organising financial support for wage payments, it is necessary to carefully approach the organisation and regulation of labour, ensure collective bargaining, and respective trade union involvement. A. Kramarenko & M. Vyshnevskaya (2022) concluded that the use of a grade-based remuneration system will ensure objective differentiation of wages, develop a competitive and transparent compensation policy, and a close relationship between performance and remuneration. Such a remuneration system has proven to be an innovative approach to motivating employees, but it has not yet become widespread in agricultural enterprises.

At the same time, N. Monteiro & O. Straume (2024), analysing the relationship between the use of various management methods and remuneration in a large representative sample of Portuguese firms, concluded that the presence of trade union activities to regulate remuneration at the meso- and micro-level is a positive phenomenon, and companies with works councils are more likely to be committed to higher productivity and pay their staff equally. Furthermore, a significant role is played by the possibility of promoting highly efficient employees in firms and the corresponding increase in their wages. P. Zheng *et al.* (2024) proved the direct impact of consumer demand, investment demand, and labour mobility on agricultural wage growth in China. Furthermore, agricultural support policies also contribute to wage growth in the sector.

Greek researchers G. Giotis & N. Mylonas (2022), having analysed the results of theoretical and empirical studies by other academics, concluded on the absence of a substantial connection between the minimum wage and employment, and that the growth of the minimum wage does not significantly affect unemployment, etc. The findings of N. Thi (2021) are

somewhat different. The researcher conducted a survey of workers in agricultural regions of Vietnam and identified the factors influencing employment policy on their wages, which are positively affected by the established minimum wage and the employee's professional level of education. According to the study by T. Habanabakize & M. Zerihun (2024) from South Africa, food imports, inflation, and real wages affect long-term changes in the number of people employed in agriculture. The researchers insist that the state agricultural policy should be aimed at import substitution to increase employment and wages in the sector.

These researchers have investigated labour motivation and remuneration at various enterprises, especially in the agricultural sector, without distinguishing technological processes, particularly in the production of crops: tillage, sowing, care, harvesting, etc. At the same time, insufficient attention has been paid to the study of organisational, economic, social, and labour features of remuneration in agricultural enterprises at critical stages of production technology. The purpose of this study was to establish the regulatory, methodological, scientific and practical principles of remuneration of personnel at a critical stage of production and to form the components of wages in agricultural enterprises.

MATERIALS AND METHODS

The research was conducted at the Ukrainian Research Institute of Agricultural Productivity (Kyiv) during the third quarter of 2024. The results of scientific developments of Ukrainian and foreign scientists, statistical data on wages in the sectors of the Ukrainian economy, operational data on agricultural enterprises, etc., were used. The calculations were processed using Microsoft Office computer software (spreadsheet editor). The minimum tariff rate of hourly wages for simple work in the industry was calculated based on the established minimum wage level in the country. Using intergrade coefficients, other tariff rates of remuneration for different types of work in agricultural enterprises were determined. The study reviewed and accounted for the regulatory provisions of the laws of Ukraine on the application of the tariff system of remuneration of labour (Law of Ukraine

No. 108/95-BP "On Payment of Labour", 1995), the current and projected levels of the minimum wage in the state (Law of Ukraine No. 3460-IX "On the State Budget of Ukraine for 2024", 2023; Decree of the Cabinet of Ministers of Ukraine No. 751 "On Approval of the Budget Declaration for 2025-2027", 2024). And the collective agreement regulation of social and labour relations, the procedure for differentiating the levels of basic wages of workers and specialists, as well as the list of extra payments and bonuses in agricultural enterprises (Law of Ukraine No. 3356-XII "On Collective contracts and Agreements", 1993; Branch agreements..., 2014). The methodological tools of the study included general scientific and special research methods, namely: abstract-logical (to substantiate the key points and conclusions); monographic (to consider the findings of other researchers in this area of study); statistical-economic (to build a series of dynamics, comparisons), systematic approach (to substantiate scientific and methodological recommendations for remuneration of labour during grain harvesting in enterprises), etc.

RESULTS AND DISCUSSION

It was found that the key criteria for material incentives for agricultural workers in the harvesting of grain crops are the indicators of prompt and high-quality harvesting, the level of yield achieved, gross harvest, completion of the seasonal task by the personnel, etc. It was found that harvesting grain crops in enterprises with minimal losses of agricultural products requires adjusting the organisation of labour of the production personnel involved. Specifically, it is necessary to start with organisational measures to form an efficient ratio of human and technical resources required for the planned volume of gross harvest of the relevant grain crops, and then to set up material incentives for the relevant personnel through the mechanism of remuneration for qualitative and quantitative performance indicators.

It was found that material incentives should provide the basis for the motivational mechanism of labour collectives in enterprises (institutions and organisations), which is based on the following principles: employees' wages have a minimum limit regulated by the state;

increasing the role of contractual regulation of remuneration (collective agreements at the sectoral level and collective agreements in enterprises); payment of wages to employees is based on the results of labour expended, quantity and quality of products received. Therefore, the principal task of organising labour remuneration is to ensure an adequate combination of state and contractual regulation of labour remuneration in each enterprise. It was argued that the choice of the form, system, procedure of remuneration, etc., should be substantiated for certain types of work, categories of employees in enterprises, to ensure the link between wages and labour results (individual and/or collective). According to the legislation and business practices in the agricultural sector, the most common wage system in the economy is the tariff system, which is based on an assessment of the complexity of work and the qualifications of employees and includes: tariff scales, tariff rates, salary schemes, professional standards (qualification characteristics). It allows for differentiation of staff salaries based on the calculation of the tariff rate of a first-class worker (less energy-intensive work, simple unskilled labour), inter-qualification and inter-office ratios of tariff rates using differentiated coefficients (Law of Ukraine No. 108/95-BP "On Payment of Labour", 1995; Branch agreements..., 2023; Ivchenko et al., 2023b).

It was confirmed that employers determine the tariff categories according to the qualification characteristics (Ivchenko et al., 2023a), methodological recommendations for tariffification of work in the industry. Enterprises may also establish alternative remuneration systems, such as the grade system, which involves the assessment and construction of a grid matrix of job categories (grades) and their corresponding salary ranges – a "salary fork" – an innovative development in personnel management. However, due to its complexity and high staff turnover in agricultural enterprises, this development has not yet become widespread in the agricultural sector. It was found that for most of the personnel of agricultural enterprises, the hourly form of remuneration is applied using the classical six-grade tariff scale for remuneration of labourers and the scheme of official salaries for specialists, professionals, and managers.

Remuneration in agricultural enterprises is based on a tariff-based remuneration system that has not exhausted its capacity to differentiate and substantiate differing amounts of employee salaries depending on the quantity and quality of work performed. The piece-rate form of remuneration is used to pay wages to employees engaged in grain harvesting, as it is possible to ensure a direct quantitative link between wages and the tonnage of grain harvested per working day and the harvested area.

The use of piece-rate and/or time-based remuneration and related systems, the tariff scale and salary structure, the terms and amounts of various allowances, surcharges, bonuses, and the determination of remuneration rates for the relevant work are established by enterprises independently through social dialogue and compromise between the employer (owner or management) and the trade union organisation or representative of the enterprise's labour collective. If such an agreement is not concluded, these issues must be agreed upon with the trade union organisation or representative of the labour collective and approved by the employer's corresponding regulation (order, instruction, or provision). To calculate remuneration for grain harvesting, the norms and provisions of remuneration cannot be lower than those stipulated in the collective agreement concluded at the industry level. Thus, in agriculture, the last effective Sectoral Agreement was concluded in the summer of 2023 between the Ministry of Agrarian Policy and Food of Ukraine and the Trade Union of Agricultural Workers of Ukraine for 2023-2025. It stipulates that the minimum wage rate for a first-degree worker with normal working conditions, as the base wage rate for the formation of the wage scale (salary schedule for specialists), is at least 115% of the minimum wage, provided that the monthly (hourly) labour rate is met (Branch agreements..., 2023).

Starting from 2017 and until 2022, the calculation of the basic tariff rate for the first category of an employee of a simple job (profession) was based on the 115% increase in the subsistence minimum for able-bodied persons (Branch agreements..., 2014), which previously considerably limited the establishment of competitive wages in the industry and its differentiation

among distinct types of work and professions in the workforce of agricultural enterprises. It was found that a positive phenomenon of social dialogue between the sectoral trade union and the central agricultural policy agency is the agreement on the intention to increase tariff rates and salaries of employees in the sector from 2023 owing to the fact that instead of the subsistence minimum, the minimum wage should now be used in the calculation of tariff rates and salaries. However, the most recent collective agreement, the Branch Agreement in Agriculture for 2023-2025, does not include the employers' side (Branch agreements..., 2023), although the provisions of the agreement are binding on all business entities in the agricultural sector that fall within the scope of the parties to the agreement.

Such an increase in minimum wage guarantees in agricultural enterprises should lead to an increase in the interest of the rural population and intensify employment in the agricultural sector of the economy. Therefore, having considered the key scientific approaches to the organisation of remuneration for grain harvesting in agricultural enterprises in 2024, in the following years, the minimum state and sectoral contractual remuneration guarantees should be observed to determine the salary for grain harvesting. Thus, the Law on the State Budget for 2024 approved the minimum monthly wage of UAH 8,000 starting from 1 April. In the next two years, it is likely to stay unchanged, as confirmed by the Budget Declaration for 2025-2027 adopted by the Government of Ukraine (Law of Ukraine No. 3460-IX "On the State Budget of Ukraine for 2024", 2023; Decree of the Cabinet of Ministers of Ukraine No. 751 "On Approval of the Budget Declaration for 2025-2027", 2024). If the minimum wage in Ukraine is increased in the coming years, it will be easy to make the relevant methodological calculations for the formation of the tariff scale of remuneration in agricultural enterprises, which are presented below.

It was found that the factual average monthly number of working hours in 2024 and hypothetically in 2025 will be higher than in peacetime, since there are no holidays during martial law. Therefore, in 2024, the fund of working hours without non-working (weekend) days for a five-day working week (40 hours per

week, 8 hours daily; days off - Saturday and Sunday) is estimated to be 2,096 h, in 2025 – 2,088 h (Debit-credit, 2024; Accountant, 2024). Thus, the average monthly number of working hours in 2024 will be 2,096 h / 12 mos. = 174.67 h, slightly less in 2025 – 2088 h / 12 mos. = 174.00 h. Starting from April 2024 and in the following years, the minimum guaranteed wage rate for a first-class worker in the agricultural sector will be UAH 9,200 per month (UAH 8,000×115%), or UAH 52.67 per hour (UAH 9,200 / 174.67 h) in 2024

and UAH 52.87 (UAH 9,200 / 174.00 h) in 2025. This is the amount of the minimum wage per month and the minimum wage rate for a first-class worker adopted for further calculations and differentiation of wages for distinct categories of workers in most agricultural enterprises (coverage is over 98% of the staff (Collections of the State Statistics Service of Ukraine, 2021). This will serve to form a tariff grid – the minimum guaranteed wage rates, for instance, for the planned year 2025 (Table 1).

Table 1. Minimum guaranteed hourly wage rates and coefficients of intergrade ratios for certain categories of agricultural workers in 2025, UAH/h

Categories of workers	Grades						Minimum ratios of tariff rates by type of work performed to the tariff rate of a grade I worker
	I	II	III	IV	V	VI	
<i>Coefficients of inter-grade ratios</i>	1.00	1.09	1.20	1.35	1.55	1.80	x
On manual work in crop production	52.87	57.63	63.44	71.37	81.95	95.17	1.00
On manual work in animal husbandry	61.33	66.85	73.60	82.80	95.06	110.39	1.16
Mechanised work in crop production, earthworks, and road construction (by region): Group I (Steppe)	61.86	67.43	74.23	83.51	95.88	111.35	1.17
Group II (Forest-Steppe)	68.20	74.34	81.84	92.07	105.71	122.76	1.29
Group III (Polissia, Carpathian region)	75.08	81.84	90.10	101.36	116.37	135.14	1.42
Mechanised work in animal husbandry	61.86	67.43	74.23	83.51	95.88	111.35	1.17
Mechanised loading and unloading operations	56.04	61.08	67.25	75.65	86.86	100.87	1.06
Transport work performed by tractor units	56.04	61.08	67.25	75.65	86.86	100.87	1.06
Repair and machine tool work	56.04	61.08	67.25	75.65	86.86	100.87	1.06

Source: compiled and calculated by the authors of this study based on the Law of Ukraine No. 3460-IX “On the State Budget of Ukraine for 2024” (2023) and the Branch Agreements Regulating Social and Labour Relations in Agriculture for 2015-2025 (2023)

According to Table 1, the relevant types of work in the sector are directly related to the harvesting of grain crops at the enterprises. To calculate the tariff rates for all types of work and grades, the coefficients of the ratios by type of work and the coefficient of intergrade ratios are used. It was noted that mechanised work for tractor and combine drivers is divided into three groups in the tariff scale depending on the location of the enterprise. The principle was established that it is physically more demanding to work on soils in the northern and western

regions of the state, and easier to work on soils in the southern and eastern regions (Branch agreements..., 2023).

It was argued that the agricultural sector has its specifics, which affects labour remuneration. At the same production costs, there is a possibility of obtaining different final results, which depends on soil fertility, the use of varietal material and fertilisers, natural and climatic conditions, and seasonality. Another specific feature of agricultural production is that a highly skilled worker must perform a variety of jobs that fall

into distinct categories and receive varying pay throughout the year. It was found that all these factors should be considered when organising the work process. Thus, to organise the harvesting of grain crops, it is necessary to define seasonal tasks for the formed crews of machine operators, which are developed based on the harvesting areas and terms, available harvesting and transport equipment (combines, trucks) and its productivity, yield and quality of grain, etc. Mechanic crews are formed based on their qualifications, seniority, experience, psychological compatibility, etc., and each crew is assigned a standardised task that can be adjusted during the harvesting campaign.

Crops can be harvested in one or two ways: direct or split harvesting. The first method (direct harvesting) involves harvesting upright and clean crops, with perennial grasses sown, as well as stunted and thinned crops that are not weed-free. The second method involves mowing the crops first, and then picking up the swaths and threshing them with self-propelled combines with a pick-up 2-7 days after mowing (Ivchenko *et al.*, 2023b). It was found that to harvest grain crops in the most efficient terms with the technical base and human resources available, enterprises usually introduce summarised accounting of working time. The current Sectoral Agreement in Agriculture for 2023-2025 allows for the introduction of this measure in labour organisation, except in cases of work in hazardous conditions. In the case of summarised working time accounting, the duration of the accounting period (month, quarter, half-year, year) is set by the collective agreement of the enterprise. Work in excess of the normalised working hours in cer-

tain periods may be compensated for by shorter working hours in other periods or by providing extra days of rest within the accounting period. This allows reducing biological losses of grain crops in the fields from grain shattering through the use of extended work shifts for machine operators (combine harvesters), drivers, workers at the point of use (elevators, granaries), etc.

When negotiating and concluding a collective agreement, companies should agree on the list of production units and categories of employees who will work in the mode of summarised working time accounting, and for each unit and category of employees, the length of the accounting period should be specified. When establishing the accounting period (time standards), it is recommended to use the normative tables of working time duration, which are annually developed by the Ministry of Social Policy of Ukraine and posted on many information websites on HR and accounting issues (Debit-credit, 2024; Accountant, 2024). For example, in the section "Work and rest regime" of the collective agreement, it is recommended to stipulate that the annual summary working time record shall be used for the duration of the collective agreement for employees of the crop production shop, motor transport shop, repair shop, mechanised current, grain storage, etc. Time worked in excess of the normal working hours in the accounting period is paid as overtime (Branch agreements..., 2023). To create an incentivising level of wages in agricultural enterprises, it is worth considering their level in the different sectors of the economy. Thus, in June 2024, the average wage in agriculture was UAH 15.0 thsd, and in Ukraine – UAH 18.9 thsd (Table 2).

Table 2. Average monthly wages in Ukrainian industries

Indicator	Year				2024/2021, ±
	2021	2022	2023	2024*	
Subsistence minimum per 1 person for able-bodied persons per month, UAH	2,481	2,684	2,684	3,028	547
Minimum monthly salary, UAH	6,500	6,700	6,700	8,000	1,500
Minimum basic wage per month in agricultural enterprises according to the sectoral agreement, UAH	2,853	3,087	3,087	9,200	6,347
Average salary in Ukraine, UAH thsd	12.8	14.6	15.4	18.9	6.1
Including by industries: manufacturing	13.9	15.4	16.6	20.4	6.5
construction	9.8	10.7	10.1	14.6	4.8

Table 3, Continued

Indicator	Year				2024/2021, ±
	2021	2022	2023	2024*	
transport and communications	12.2	14.5	14.5	19.0	6.8
vehicle trade and repair	12.7	14.8	17.8	22.8	10.1
information and telecommunications	23.5	30.5	36.5	49.5	26.0
Financial and insurance activities	23.6	31.0	33.1	39.1	15.5
public administration, defence	15.9	17.6	19.1	23.4	7.5
science	17.6	20.9	20.9	26.3	8.7
education	10.8	11.4	11.1	12.6	1.8
healthcare	11.3	13.2	13.5	15.2	3.9
agriculture, forestry, and fisheries	10.0	11.9	12.3	15.0	5.0
As a % of the subsistence minimum per 1 person for able-bodied persons	403.1	443.4	458.3	495.4	92.3
As a % of the national minimum wage	153.8	177.6	183.6	187.5	33.7
As a % of the minimum wage in agriculture	350.5	385.5	398.5	163.0	-187.5
As a % of the average salary	78.1	81.5	79.9	79.4	1.2
As a % of the average salary in the industry	71.9	77.3	74.1	73.5	1.6

Note: as of 10 June 2024

Source: compiled and calculated by the authors of this study based on the State Social Standards (2024), Branch Agreements Regulating Social and Labour Relations in Agriculture for 2014-2020 (2014) and Branch Agreements Regulating Social and Labour Relations in Agriculture for 2015-2025 (2023)

The upward trend in agricultural wages in recent years, both in absolute terms and relative to the subsistence minimum, the national minimum wage and the minimum wage in agriculture, the average national wage and the average industrial wage, can be considered positive.

In addition, to guide the calculation of wages in a particular agricultural enterprise, it is necessary to consider its current size in the sectors of the economy and, through a balanced

remuneration policy, to compete with other commodity producers in attracting the relevant personnel to the grain harvesting campaign. Thus, an analysis of the level of remuneration and the number of employees in agricultural enterprises of different sizes shows that the highest level of remuneration is observed in large (criteria: 251 employees and more, annual revenue over EUR 50 million) and medium-sized (51-250 employees, EUR 10-50 million) enterprises (Table 3).

Table 3. Wages and number of employees in enterprises and individual entrepreneurs in agriculture, forestry, and fisheries of different sizes

Indicator	Year				2022/2019, %
	2019	2020	2021	2022	
Salary, UAH	9,106.3	9,872.3	12,033.7	13,131.1	4,024.8
Wages and salaries, UAH					
large enterprises	12,814.3	14,509.7	16,652.2	17,970.0	5,155.7
medium-sized enterprises	8,748.5	9,664.9	12,243.9	12,770.1	4,021.6
small enterprises (excl. micro-enterprises)	6,548.2	7,089.4	8,479.3	10,227.4	3,679.2
micro-enterprises	3,889.7	4,149.7	4,332.1	5,339.3	1,449.6
Number of employees, thsd people – total	553.2	527.4	520.2	448.4	-104.8
Incl., %:					
large enterprises	7.8	7.3	8.3	7.7	-0.1 p.p.
medium-sized enterprises	54.5	52.7	50.6	51.7	-2.8 p.p.
small enterprises (excl. micro-enterprises)	22.7	24.0	24.2	25.0	-2.3 p.p.
micro-enterprises	15.0	16.0	16.8	15.6	0.6 p.p.

Source: compiled and calculated by the authors of this study based on the Collections of the State Statistics Service of Ukraine (2021) and the Collections of the State Statistics Service of Ukraine (2022)

However, medium-sized and small businesses (11-50 employees, EUR 2-10 million) employ more people. The criteria for micro-entrepreneurship are the number of employees – up to 10 people and annual income – up to EUR 2 million. When calculating piecework rates of remuneration for three major categories of workers in the grain harvest 1) machine operators (tractor drivers, combine harvesters); 2) truck drivers; 3) workers at grain receiving points (elevators) – more incentive payments should be applied compared to other categories of workers and to personnel in other sectors of the economy. It was found that this can be accomplished in three ways: 1) by increasing the tariff hourly rates of remuneration; 2) by establishing extra payments and allowances to wages;

3) by incentive payments (bonuses). In each particular enterprise, this can be handled individually by combining the above approaches.

The basis for calculating piecework rates is the hourly wage rates of different grades of the relevant work. For certain highly skilled employees engaged in particularly important and responsible work, collective agreements recommend that increased tariff rates (monthly salaries) be determined by intergrade coefficients with increased coefficients of up to 2.7 times the tariff rate of a grade I worker for the relevant type of work or profession (Branch agreements..., 2023). Therefore, when harvesting grain crops in enterprises, it is possible to differentiate the tariff rates of remuneration in 2025 as follows (Table 4).

Table 4. Example of calculation of the increased hourly wage rates for manual, mechanised and transport work during grain harvesting, UAH/hour

Categories of workers	Grades						Minimum ratios of tariff rates by type of work performed to the tariff rate of a grade I worker
	I	II	III	IV	V	VI	
<i>Coefficients of inter-grade ratios</i>	1.00	1.34	1.68	2.12	2.46	2.70	X
On manual work in crop production	52.87	70.85	88.82	112.08	130.06	142.75	1.00
Mechanised work in crop production, earthworks, and road construction (by region): Group I (Steppe)	61.86	82.89	103.92	131.14	152.18	167.02	1.17
Group II (Forest-Steppe)	68.20	91.39	114.58	144.58	167.77	184.14	1.29
Group III (Polissia, Carpathian region)	75.08	100.61	126.13	159.17	184.70	202.72	1.42
Transport work performed by tractor units	56.04	75.09	94.15	118.80	137.86	151.31	1.06

Source: compiled and calculated by the authors of this study based on the Law of Ukraine No. 3460-IX “On the State Budget of Ukraine for 2024” (2023) and the Branch Agreements Regulating Social and Labour Relations in Agriculture for 2015-2025 (2023)

Furthermore, it is recommended to increase wages in the first days of the mass harvest of any crops in enterprises, depending on their financial capacities, in the first days of the mass harvest. For example, it is recommended to pay tractor drivers and agricultural machine operators who perform variable labour rates for threshing grain crops in the first 10 days, and for mowing grain into swaths in the first 7 days of mass harvesting, at product rates increased by up to 60% (up to 30% if labour rates are not met), and other employees – by 15-30%, etc. (Ivchenko *et al.*, 2023b).

Such a considerable increase in the wages of agricultural production staff involved in grain harvesting takes place only for a relatively short period of time (approximately 2-4 weeks for most agricultural enterprises, depending on the area and types of crops), and therefore will not be an excessive cost factor in determining the cost of production. And considering that the grain will be of the best quality and will be stored and later sold, it should provide the corresponding financial income in the long run. Therefore, each year, it is worth analysing and comparing the amount of additional incentive payroll costs

with the cost estimate of the improvement in the quantitative and qualitative characteristics of the grain harvest. Such information will serve as a basis for applying certain incentive payments and their amounts for certain employees.

Proceeding from the tariff rates, labour standards, and terms of the collective agreement (provisions on remuneration and bonuses) adopted by the enterprise, it is recommended to establish two types of remuneration rates for products and work performed: per unit of output in tonnes and per unit of harvested area in hectares (in this case, 60-80% of the planned wages should be used to calculate the remuneration rate per tonne of grain harvested). Remuneration rates should be calculated before the start of the mass harvest, when it is possible to more accurately determine the yield of grain crops and, therefore, the seasonal labour rate for certain types of harvesting units, including through control threshing. This approach to remuneration will ensure that employees are not focused on the area harvested, but rather on achieving higher yields. To further incentivise staff to work productively during grain harvesting, it is planned to set various bonuses and allowances to the tariff rates of remuneration: 12% for labour intensity, 20% for high professional skills in grade V jobs, and 24% for grade VI jobs.

Tractor drivers of agricultural production of the first class are entitled to a guaranteed premium of 20%, of the second class – 10% of the tariff rate, drivers of motor vehicles of the first class – 25%, of the second class – 10% of the tariff rate (Branch agreement..., 2023). The classification of a machine operator is determined by a qualification commission established by order of the owner of the enterprise or its authorised body. The qualification characteristics of tractor drivers in agricultural production (by class of mechanic, requirements for their installation) are contained in the Handbook of Qualification Characteristics of Occupations "Agriculture and Related Services" (Ivchenko et al., 2023a).

In the case of night work (from 10 p.m. to 6 a.m.), a supplement of 40% of the basic salary can be set, and in the evening (from 6 p.m. to 10 a.m.) – 20%. For example, a Class I mechanic working in the harvesting of winter wheat by

direct combining with straw (Grade VI) in the Forest-Steppe natural zone in the Kyiv region, according to the tractor driver's record sheet, worked 80 hours, including 20 hours in the evening. His basic salary for this period in 2025 will be: UAH 14,731.20 (80 hours × UAH 184.14). Apart from the accrued remuneration at piece-work or progressively increasing rates, it is recommended that the mechanic be paid the following surcharges and allowances 12% for intensity ($14,731.20 \times 0.12 = 1,767.74$ UAH); 24% for high professional skills ($14,731.20 \times 0.24 = 3,535.49$ UAH); 20% for class (class I) ($14,731.20 \times 0.2 = 2,946.24$ UAH); 20% for working in the evening (20 hours × $184.14 \times 0.20 = 736.56$ UAH). According to the calculations, the extra wage will amount to UAH 8,986.03, or 61% of the basic wage, which is allowed and recommended during the crucial period of grain harvesting in agricultural enterprises.

The efficiency of work during grain harvesting largely depends on additional financial incentives. Apart from the previously mentioned extra payments and allowances, companies may establish other alternative types of incentive remuneration pursuant to the terms of a collective agreement. Specifically, an effective type of financial incentive is the establishment of added payments for exceeding shift work rates or seasonal production targets. The practice of incentives for meeting seasonal targets on time also proved to be effective: if the seasonal target is met at the level of 100-109% – the bonus to the employee's total earnings for harvesting grain crops can be set at 10%; 110-114% – 15%; 115-119% – 20%; 120% and more – 30%. (Ivchenko et al., 2023b).

Agricultural enterprises, apart from the above types of extra remuneration, may apply bonuses for certain performance indicators, which should be regulated in the internal documents on remuneration and bonuses for staff. It is recommended that bonuses be paid to employees of agricultural enterprises at the expense of the wage fund based on the following criteria: prompt and high-quality performance of planned and/or operational work, instructions, orders, instructions; conscientious performance of official duties; significant achievements in work, high performance indicators, etc.

According to the approved bonus fund in the staffing tables of employees, bonuses (submitted by the heads of internal business units and approved by an enterprise order), considering the seasonality of work in crop production, are recommended to be paid at the following intervals: about 70% of the bonus fund should be distributed among employees during the year by month (e.g., March-September), about 30% – at the end of the year (e.g., October-December) based on the results of their work and achievement of the agricultural production plan, as well as on the performance of the company's financial and operational activities. The distribution of current bonuses for employees in the crop production sector should be made considering the seasonality of work during the sowing campaign, harvesting, etc.

Researchers N. Patyka & Y. Pasichnyk (2023) proved that economic factors, specifically the state of agricultural enterprises, significantly affect the incomes of rural residents, where the number of employed people is decreasing. Therefore, overcoming rural poverty should be based on the diversification of the rural economy. The authors of this study share the conclusions of researchers, with whom the proposed recommendations for remuneration in agricultural production do not coincide but complement them in terms of forming levers of influence on increasing labour productivity through remuneration at the micro level of the agricultural economy.

The developed proposals for non-monetary motivation using the tools of the general principles and approaches of the enterprise quality management system through a system of measures and influences determined by the purpose, psychological prerequisites, and gender and age structure can directly or indirectly affect the factors of staff growth and encouragement (Popyk, 2021). This is indirectly (tangentially, concomitantly, etc.) related to staff remuneration and is planned to be considered in the further research on the development of the labour motivation system in agricultural enterprises. In this perspective of non-monetary labour incentives, the formation of social capital is also important (Vyborna, 2021), under which the researcher considers relationships

based on trust, mutual obligations, and stable social ties that contribute to the development and strengthening of competitive advantages and the generation of surplus income in enterprises. The presence of social capital ensures the growth of population welfare, development of communities, regions, industries, and the national economy. This was also noted by M. Hrytsaienko (2021), who substantiated the significance of social capital in enterprises to ensure the development of corporate social responsibility. The above findings do not contradict, but complement the arguments and importance of establishing the process of regulating social and labour relations in agricultural enterprises in the formal plane through the conclusion of collective agreements, the approval of regulations on remuneration, bonuses, etc., where a prominent place is given to the issues of labour organisation and determining the planned earnings in agricultural enterprises, which will ensure trust in the employer-employee relationship.

The issue of monetary and non-monetary labour motivation is often discussed by scientists at scientific conferences. For example, N.I. Tsehelnik & L.H. Haidamachenko (2024), who addressed the consideration of international practices in the application of labour motivation methods and approaches: the creation of a respective HR department, its performance evaluation, development of corporate culture, provision of a social package, etc. O. Petrovska (2024) asserted the significance of ensuring fair remuneration, the use of rewards (bonuses) in personnel management and the strategic development of social and labour relations. O. Plesiuk & A. Slyzovska (2024) described the classification and size of bonuses, the procedure for their payment, while O. Riabchuk & A. Petukhova (2024) considered the areas of audit of calculations, which in the future will avoid violations of labour legislation and labour remuneration conditions at enterprises. In contrast to the findings of the analysed scientific conferences, the present study offered a set of proposals for the rational organisation of material incentives for productive labour of personnel in agricultural enterprises and concerned a separate technological process – grain harvesting. It was found and predicted that the mathematical

mechanism for calculating tariff rates and the corresponding formation of the tariff scale for remuneration of labour of other components of incentive wages, as described in the study, is planned for the period up to 2027.

To develop regulations and plan the labour remuneration fund, agricultural enterprises have a wide range of tools to provide financial incentives to staff. The key performance indicators for material incentives for agricultural workers during grain harvesting should include indicators of prompt and high-quality performance of labour processes, the level of yield achieved compared to the planned indicators, gross harvest, performance of seasonal tasks, labour standards, etc.

CONCLUSIONS

These areas of ensuring the incentive function of wages (increasing tariff rates of remuneration, establishing a choice of extra payments and allowances, paying bonuses, etc.) allow employees to be interested and motivated to work efficiently: to harvest grain crops in a short time with less biological losses and better grain quality. To this end, it is necessary, above all, to organise this agro-technological process by forming temporary primary labour teams with the corresponding equipment, to establish reasonable labour standards, to consider seasonal conditions and characteristics of the crops grown, and to plan suitable work and rest regimes for production personnel. The organisation of remuneration of production personnel should start with the regulation of the earnings structure in the agricultural sector of the economy, forecasting and substantiating the provision of a competitive level of salary for the

productive work of personnel. The calculations made and the tariff scale with increased rates, as well as the examples of additional payments and allowances, were developed for use in Ukrainian enterprises for the relevant categories of employees. It is also necessary to include a certain part of the payroll fund for current bonuses at the end of the business year and considering certain seasonal work according to the skills and grade of employees.

As a conclusion, improving the material incentives for workers in the harvesting of grain crops in agricultural enterprises requires further research, which should include determining the structure of material incentives in the labour motivation system at certain stages of production. Establishing and analysing the degree of influence of other intangible motivational factors on labour productivity, as well as substantiating practical measures for the use of material incentives for personnel at certain technological processes. This technological technique is the last and decisive for summarising the results of the economic year for the grain sector of each enterprise as a strategic direction of agribusiness in Ukraine (grain wedge in the total crops of Ukrainian enterprises exceeds 50%), and therefore the development of scientific and methodological recommendations for remuneration of labour during grain harvesting will be useful for specialists of specialised agro-economic services of agricultural enterprises.

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CONFLICT OF INTEREST

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Організація оплати праці на збиранні врожаю зернових культур у сільськогосподарських підприємствах

Анотація. Осучаснення наукових рекомендацій щодо оплати праці на збиранні врожаю зернових культур у підприємствах є актуальним, оскільки потенційно може сприяти вищій врожайності, більшим валовим зборам і трудовим доходам працівників, зменшенню втрат і підвищенню якості зерна, більш ефективному використанню технічних і людських ресурсів. Метою дослідження було обґрунтування наукових засад організації оплати праці на збиранні врожаю зернових культур у сільськогосподарських підприємствах із урахуванням змінних умов сьогодення. У ході дослідження використано такі методи: абстрактно-логічний, монографічний, статистико-економічний і системний підхід. Розкрито організаційні засади на збиранні врожаю зернових культур у підприємствах, які розпочинаються з формування трудових колективів і їх технічного забезпечення, режимів праці й відпочинку, ведення підсумованого обліку робочого часу залученого персоналу. Встановлено нормативні аспекти регулювання оплати праці й застосування тарифної сітки, доплат і надбавок, підвищення тарифних ставок оплати праці для визначених трьох категорій працівників підприємств на зборі врожаю зернових культур: механізаторів, водіїв і працівників у приймальних підрозділах. Доведено, що оплата праці для більшості найманих працівників у сільськогосподарських підприємствах сформована на основі тарифної системи оплати праці, яка цілком забезпечує диференціацію та обґрунтованість розмірів заробітної плати залежно від кількості й якості виконаної роботи. Запропоновано основні методичні підходи до організації праці та формування тарифної сітки й відповідних годинних тарифних ставок оплати праці на збиранні зернових культур, що варто включати як наповнення до колективних договорів, положень про оплату праці, положень про преміювання в

сільськогосподарських підприємствах. У сформованій тарифній сітці передбачається можливість підвищення міжрядних коефіцієнтів для посилення стимулюючої функції заробітної плати на зборі врожаю зернових культур. Розглянуті можливі доплати й надбавки, преміальні виплати, які рекомендовано застосовувати на вибір, щоб додатково стимулювати виробничий персонал підприємства до кращих кількісних і якісних показників їх праці. Практичне значення результатів дослідження полягало в можливості безпосереднього їх використання в сільськогосподарських підприємствах для забезпечення матеріального стимулювання виробничого персоналу до продуктивної праці на збиранні врожаю зернових культур, від якого значною мірою залежить економічний стан господарств

Ключові слова: заробітна плата; тарифна система; виробничий персонал; колективний договір; соціально-трудові відносини; агробізнес