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## САНОАТ ТИПИДАГИ ПАРРАНДАЧИЛИК ФАБРИКАЛАРИ ИШЧИЛАРИНИНГ КАСАЛЛАНИШ ДАРАЖАСИГА ГИГИЕНИК БАХО БЕРИШ

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### √ Резюме

Паррандачилик фабрикалари ишчи ўринлари кимёвий (аммиак, водород сульфат), физикавий (нокулай микроиклим, шовкин, паст ёритилганлик) омилларининг пайдо бўлиши, огир жисмоний мехнат билан характерланади. Бундай омиллар ишчилар ўртасида касалланиш даражасининг ортишига сабаб бўлади (О.В. Грецов, 2005).

Калит сўзлар: Паррандачиларга аммиак, водород сульфат, касалланиш, ногиронлик.

# ГИГИЕНИЧЕСКАЯ ОЦЕНКА ЗАБОЛЕВАЕМОСТИ РАБОТНИКОВ ПРОМЫШЛЕННЫХ ПТИЦЕФАБРИК

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#### √ Резюме

Рабочие места на птицефабриках характеризуются химическими (аммиак, гидросульфат), физическими (неблагоприятный микроклимат, шум, низкая освещенность) факторами, тяжелым физическим трудом, что приводит к повышению заболеваемости среди работающих (О.В. Грецов, 2005).

Ключевые слова: птицеводов действует аммиак, гидросульфат, болезнь, инвалидность.

# HYGIENIC ASSESSMENT OF THE LEVEL OF MORBIDITY OF WORKERS OF INDUSTRIAL TYPE POULTRY FACTORIES

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## ✓ Resume

Poultry factories jobs are characterized by the emergence of chemical (ammonia, hydrogen sulfate), physical (unfavorable microclimate, noise, low luminosity) factors, heavy physical labor. Such factors cause an increase in incidence among workers (o.V. Gresov, 2005).

Key words: to poultry, ammonia, hydrogen sulfate, morbidity, disability.

#### Relevance

The number of industrial poultry farms in the Republic of Uzbekistan is growing in order to provide the population with meat and egg products. In addition, poultry farms are characterized by the emergence of physical (unfavorable microclimate), chemical (ammonia, hydrogen sulfate) and biological (bacteria, viruses, vomiting) factors that adversely affect the health of workers in the workplace. Such factors lead to the emergence of various diseases among workers (S.V. Schneider, 2002).

M.E. Scientific studies by Eglite (2000) have shown that poultry are more susceptible to acute respiratory and influenza diseases. The next places in terms of morbidity are angina, acute bronchitis, pneumonia, polyarthritis, radiculitis, allergic diseases.

Analysis of morbidity rates shows that general illnesses and temporary loss of working days are higher among workers in workshops with unfavorable microclimate, high dust conditions, high microbial contamination, high levels of ammonia and hydrogen sulfide, than in administrative and auxiliary shops.

V.A. Kiryushin's (2003) research is based on the fact that in the conditions of low light production of poultry operators, they have a high level of pathology of the visual organs.

I.A. Nushtaev (2001) analyzed industrial injuries and concluded that 68.9% of work-related injuries among poultry farm workers were recorded in four occupational groups: poultry farmers, tractor drivers, locksmiths and operators. Industrial injuries occur in the auxiliary shops of the factory - 21.7%, in the main shops - 48.2%, in the food shop - 5.4%, in poultry slaughter and incubation - 6.6%.

Occupational injuries are more common in men than in women. N.A. When Kutuntseva (2002) compared factory workers with primary and secondary diseases (hypertension, chronic tonsillitis, bronchitis, gastritis and peptic ulcer), the temporary loss of ability to work with the disease was mainly due to hypertension, which accounted for 68.2%. Hypertension has been reported mainly in people over 40 years of age.

Among poultry diseases of the upper respiratory tract, acute inflammation of the upper respiratory organs (rhinitis, rhinopharyngitis, laryngitis, sinusitis), tracheobronchitis and attacks of chronic bronchitis play a major role (A.I. Olifer, 2000).

Among poultry farm workers, 87% of disability is caused by common diseases and up to 12% by injuries (R.Ya. Khomitova, 2000).

### The purpose of the research:

It consists of an assessment of the diseases recorded among the workers of the poultry factories. Objects and methods of control

Scientific researches were carried out in poultry farms of limited liability companies "Chinor chorva" of Jondor district of Bukhara region and "Omad savdo" of Gijduvan district.

The inspection materials were collected based on the analysis of the ambulance cards of the f-025 form available in the regional family clinics and the in-depth medical examination of the factory workers.

## Result and discussion

Scientific studies have shown that harmful physical, chemical and biological factors that occur in the workplaces of poultry factories cause an increase in morbidity among workers. The incidence rate of the workers was found to be related to their age, gender, length of service, and severity and intensity of labor activity.

A) Jondor Poultry Factory of Chinor Chorva Limited Liability Company.

When analyzing the temporary incapacity for work associated with the general illness of factory workers, this figure was 110.2 cases in the food shop (per 100 inspected workers), 99.8 cases in the poultry slaughterhouse, 86.6 cases in administrative farm workers, and in poultry operators. 85.2 cases (Table 1).

Table 1. Morbidity rate and temporary incapacity of factory workers (per 100 workers)

t/r	Name of the shop	Illness (percent)	Ability to work
1	Industrial and native poultry shops	85.2	881.4
2	Poultry slaughterhouse	99.8	1110.6
3	Food preparation workshop	110.2	1191.4
4	Administrative and economic staff	86.6	1190.2

Analysis of the incidence rate showed that high-level workers were recorded among workers aged 40–49 years (99.4 cases per 100 workers) with a work experience higher than 15 years (130.3 cases) (Table 1.2).



The correlation coefficients were 0.9 and 0.55, respectively. Low morbidity rates (Table 2.3) were recorded among workers aged 18–29 years (51.2 cases) with work experience of 5–9 years.

Table 2. The age-related morbidity rate of workers

The age related moroidity rate of workers.					
	Youth (year)	)			
	18-29	30-39	40-49	50-69	
Nis per 100 workers.	51.2	51.8	99.4	60.2	

Table 3. The degree of morbidity depends on the work experience of the workers.

	Work experience (years)			
	1-4	5-9	10-14	15 and higher
Nis per 100 workers.	83.6	16.2	21.8	130.3

Table 4. The degree of morbidity depends on the sex of the workers.

	Gender	
	Women	Men
For every 100 workers	109.6	76.9

Among female workers in the factory (109.6 cases), it was higher than men (Table 4). When we calculated the correlation coefficient of the relationship between the age of factory workers and their age and length of service in the Pearson method, it was confirmed that there was a strong correlation between them ( $\mathbb{Z}_{\gamma\gamma}\approx 0.9$  and 0.85).

950 workers of the factory, including 295 women, underwent medical examination (Table 5).

Table 5. Workers of the factory covered by a medical examination.

Medicinal	workers who need	Workers who	That's men	That's women	t / k
grass. year	to transfer t / k	underwent a			covered
		medical			
		examination			
2020	580	510	342	168	98.9
2021	491	440	310	130	100
total	1071	950	652	298	99.5

Among the diseases registered among the workers of the poultry factory, the main place was taken by diseases of the cardiovascular system (19.1%), diseases of the gastrointestinal tract (16.4%), diseases of the sensory and nervous systems (9.6%), musculoskeletal system (6.2 percent), kidney and urinary tract organs (6.1 percent), other diseases (13.6 percent).

Among respiratory diseases, 52.1% were acute respiratory infections, pharyngitis, angina 16.2%, influenza 12.4%, and other respiratory diseases 18.6%.

Among diseases of the cardiovascular system, hypertension accounts for 69.6%, ischemic heart disease for 19.2%, and arterial and venous diseases for 14.6%.

Among diseases of the gastrointestinal tract, peptic ulcer occupies a significant place - 37.3%, gastritis - 36.4%.

When we analyzed the results of the medical examination, the number of diseases registered for the first time among workers was 56, of which 81.9% were registered in 2021.

It should be noted that in the working groups and technical waste shops 2 cases were registered as primary disease (Table 6).

Table 6. Distribution of primary recorded diseases in factory production shops.

Tsexlar	Cases reported	Percentage of diseases (percent)
	•	
Industrial type poultry shop	12	21.0
Mother bird shop	2	2.2
Meat Poultry Shop	13	23.5
incubator	4	6.7
Poultry slaughterhouse	2	2.2
Department of Veterinary Medicine	12	19.3
Food shop	3	4.1
Mechanical repair shop	9	16.6
Technical waste workshop	2	2.1
Workshops under construction	5	7.9

Among the primary diseases found, the main share (51.2 percent) falls on diseases of the cardiovascular and basal locomotor organs. The share of other members and systems is 27.1%.

Frequent (more than 3 times) cases among factory workers accounted for 27.1% in the egg-sorting shop, 21.0% in the technical factory shop, 10.1% in the incubator shop and 10% in the food shop.

B) Gijduvan Poultry Factory of Omad Savdo Limited Liability Company.

The analysis of diseases among factory workers explained that the incidence rate in the food processing plant was 111.4 (per 100 people), and in the poultry slaughterhouse it was 91.2 (Table 7).

Table 7. General illness and temporary incapacity for work in factory shops (per 100 workers).

t/s	Workshops, departments	Kasal.holati	Lost days
1	In the industrial type and the mother poultry shop	87.3	891.6
2	Poultry slaughterhouse	91.2	1120.4
3	Food preparation workshop	111.4	1201.2
4	Administrative farm shop	91.1	1200.3

Disease analysis showed that morbidity rates were higher among workers aged 40-49 years (101.2) and among workers with more than 15 years of service (141.1) (Tables 8,9,10).

Table 8. The degree of disease associated with the age of factory workers.

	Youth (year)	)			
	18-29	30-39	40-49	50-69	
Nis per 100 workers.	52.9	53.6	101.2	64.3	

Table 9. Morbidity rate depending on the work experience of the workers.

	Work experience (years)			
	1-4	5-9	10-14	15 and higher
Nis per 100 workers.	89.1	19.2	23.2	141.1

Table 10
The degree of morbidity depends on the sex of the workers.

	Gender		
	Women	Men	
For every 100 workers	111.2	81.4	



The calculation of the correlation coefficient of the relationship between age and length of service in the Pearson method confirmed that there was a strong correlation between them  $(Z_{\chi\gamma}\approx 0.9)$  and 0.85, respectively).

Cardiovascular diseases (49.1%) also play a key role in the poultry factory of Omad Savdo LLC in Gijduvan district.

The next places are occupied by the musculoskeletal system - 23.8%, respiratory organs - 21.9%, gastrointestinal diseases - 18.4%, sensory and nervous systems - 10.1%, musculoskeletal system - 9.2%, renal urinary system - 7.8 percent and various other diseases - 13.6 percent.

Table 11
When analyzing diseases in the shop floor, the most common disease among meat factory workers is the analysis of the first registered diseases among the shops.

Tsexlar	Cases reported	Percentage of diseases (percent)
Industrial type poultry shop	14	22.0
Mother bird shop	3	2.3
Meat Poultry Shop	15	24.1
incubator	5	6.9
Poultry slaughterhouse	2	2.2
Department of Veterinary Medicine	13	20.1
Food shop	3	4.1
Mechanical repair shop	9	16.6
Technical waste workshop	2	2.1
Workshops under construction	6	8.2

In the poultry shop for meat (24.1), followed by the industrial poultry shop (22%), mechanical repair shop (16.6%), veterinary department (21.1%).

Table 12. Distribution of primaryly detected diseases by shop floor in factory production.

Workshop	Cases reported	Percentage of diseases (percent)
Industrial type poultry shop	13	22.0
Mother bird shop	3	2.4
Meat Poultry Shop	14	24.1
incubator	5	6.9
Poultry slaughterhouse	3	2.3
Department of Veterinary Medicine	12	19.3
Food shop	3	4.1
Mechanical repair shop	10	16.9
Technical waste workshop	3	2.3
Workshops under construction	6	8.1

Among the diseases, 52.2% are cardiovascular diseases and the main movement organs (24.9%). Diseases of the remaining organs accounted for 28.4 percent (Table 12).

In conclusion, it should be noted that the type of disease among workers in poultry factories is related to the types of jobs and working conditions. In addition, an organized medical examination confirms that the diseases are related to the age, length of service, sex of the workers. Cardiovascular pathology (51.2, 50.4%, respectively) occupies the main place in poultry diseases. The next places are occupied by diseases of the respiratory system, gastrointestinal tract, sensory nervous system, skeletal muscle, kidneys.

#### LIST OF REFERENCES:

- 1. Grevtsov O.V. Hygienic aseptics optimization of conditions of labor of poultry workers. //Dissertation of candidate Ryazan, 2005, -p 158.
- 2. Kiryushin V.A. Izbran nye voprosy gigieny truda i ekologii cheloveka. // Ryazan, 2003, p 68
- 3. Kutentseva N.A. Xronicheskoe zabolevaniya u rabotnits promыshlennogo ptitsevodstva. // J. Medicine Russia, 2002, № 2, -s 50-51.
- 4. Olifer A.I. Biological hazards. Hygiene of labor in agricultural production: J. Medicine, Moscow, 2000, -p141-155.
- 5. Ortikov A.A. Some hygiene issues according to the conditions of the workers of poultry farms //Asademicia an International Multidisciplinary Research Journal.Vol. 11, Issue 3, -2021. –C 1274-1279 /
- 6. Ortikov A.A environmental fnd hygienic condition fnd estimation jf the working conditions of workers of poultry farming economy //Central asian journal of medical and natural sciences.-2021.issn (o): 2581-6934 -C 229-234.
- 7. Ortikov A.A. Some hygienic issues on the working conditions of poultry farm workers. //Bbulletin of the doctor 99 (2), PP.74-79
- 8. Ortiqov A.A. Peculiarities of Agricultural Workers // central asian journal of medical and natural sciences. //Special issue jn Covid-19-2021. –C 266-269.
- 9. Ortikov A.A. Poultry farm as a source of environmental pollution // asademicia An International Multidisciplinary Research //Journal.Vol. 11, Issue 11, -2021. C-554-558.
- 10. Shneyder S.V. Voprosy obespecheniya san- epid . blagopoluchiya naseleniya v tsentralnyx regionax. // FNTsG im. F.F.Ersmana , Voronezh, 2002, № 6 pp. 279-281.
- 11. Eglite M.E. Distribution and etiology of allergic diseases in poultry. // Hygiene of labor and prof. Zabolevaniya, 2000, № 3, pp. 4-7.
- 12. Khamitova R.Y. Ob attestatsii rabochix mest v selskoxozyaystvennom proizvodstve. // J. Medicine, Kazan, 2000 № 1, pp. 61-64.

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