

## **Development of Health-Promoting Measures for Working Conditions in Modern Horticulture and Viticulture Farms**

**Berdiev Umidjon Azimovich**

**Abstract:** In recent years, horticulture and viticulture sectors have been expanding in Uzbekistan within the framework of agricultural modernization and cluster system development. However, working conditions in many farming enterprises still face a number of challenges. These include high temperature exposure, heavy physical workload, the impact of chemical agents (pesticides, carbon monoxide, nitrogen oxide, formaldehyde), and inadequate compliance with sanitary-hygienic standards. This paper analyzes these occupational risks and proposes practical and effective measures to improve the health and safety of workers. The suggested solutions aim to protect worker health, increase labor productivity, and ensure environmental safety.

**Keywords:** Cluster, horticulture, viticulture, farming enterprises, pesticides, carbon monoxide, nitrogen oxide, formaldehyde, occupational hygiene, health improvement.

### **Introduction.**

Modern gardening and viticulture on farms The number of farms and private homesteaders growing agricultural products is increasing day by day. Fruits and vegetables street chats special organized cultivation in buildings – in gardens cultivated. Horticulture all agro-technical processes at hand is done. So, gardening conditions some networks automated regardless, this in buildings working workers labor conditions weight preserved It is staying.

In gardening winter and spring in the months microclimate components ( temperature, humidity ) are set to the standard correct Also, gardening under the circumstances all agro-technical processes whole season during to workers chemical factors ( carbon oxide, nitrogen oxide, formaldehyde ) permanent impact arrived stands.

Below above literature comment section Latin in the inscription, that is Uzbek of the language Latin in the alphabet complete in appearance presented I am :

Last in years In Uzbekistan village farm modernization to do and cluster system develop within gardening and viticulture directions wide comprehensive is developing. However, the farmer on farms worker of employees labor conditions still row to problems has : high temperature, strong physical loading, chemical effects of substances ( pesticides ), sanitation and hygiene requirements complete compliance not to be done and others. Therefore, this in the field labor environment health promotion is a pressing issue.

### **Research and methods.**

On farms workers labor conditions health improvement today's on the day not only health save, maybe village farm efficiency increase with related is a pressing issue. World Health storage Organization (WHO) and International labor According to the International Labour Organization (ILO) according to, agrarian in the field labor safety provide, occupation diseases eliminate to grow and ecological security storage main priority from directions is [1, 2].

Uzbekistan under the circumstances this to the point related one row scientific research done For example, R. Jo' rayev and others by take visited in research [3] farmer on their farms labor environment evaluation, workers to your health agrotechnician factors impact, sanitation and hygiene status analysis Research to the results According to, 60–70 percent of workers high temperature, ultraviolet radiation, chemical substances to the effect face to come, this and breath paths, skin diseases and general to fatigue reason to be determined.

International in practice, especially in the context of FAO and ILO organizations in the recommendations, the village farm in the field worker health storage according to one row standards working [ 4 ]. This in recommendations labor environmental monitoring, protection tools with provide, regular medical exams transfer and ecological factors into account to take emphasized.

In 2020–2024 Europe's agrarian to the field related scientific in magazines announcement made in articles ( for example, “Journal of Agricultural Safety and Health”) viticulture and gardening in the field to workers impact doer main risks as chemical substances, directly correct sun rays and work at the time fatigue [ 5 ] They are risks reduce for specialized shady fields, personal protection tools and work time effective organization to do offer reached.

With this together, Uzbekistan Republic Labor codex and " Work" protection to do "about" Law (2023 Amendment ) Farmer farms of employees labor conditions protection to do, work time, rest, safety and medical service show with related legal the basics by designating gives [6].

### **Result and discussion.**

Gardening and viticulture products in cultivation agricultural technology and technologies intensity, in the structure microclimate conditions of plants pest and of diseases appearance to be opportunity creates. Gardening under the circumstances used pesticides amount and harmfulness level according to higher It will be. come out this highlight yes, gardening under the circumstances labor doing to workers heavy physical pressure, uncomfortable microclimate, chemical factors and biological factors negative impact Gardening under the circumstances grapes of cultivation labor conditions improve and health improvement requirement This will do. scientific search exactly so problems solution to do directed.

Our Republic population year during wet fruits and vegetables with provide, today on the day the population food with of providing basis organization is doing Gardening and viticulture products in cultivation all agrotechnician processes gardening under the circumstances is executed. In such circumstances 70 percent of labor in hand is executed. From now on outside closed under the circumstances used organic mineral fertilizers and chemical of substances workers to the body negative impact high will be. H. O. Kasimov take went in horticulture inspections (2020) microclimate conditions open in a way fruits and vegetables from cultivation complete difference The world's scientists to the information see in gardening under the circumstances workers to the body carbon oxide, nitrogen oxide, formaldehyde permanent impact will reach.

Above cited scientific analyses based on this conclusion to do maybe gardening under the circumstances workers to the body working of release complex inconvenient factors impact In such circumstances workers gardening harmful from factors protection to do is a pressing issue.

**Work purpose.** Gardening and viticulture fruit on farms and vegetables in cultivation participation enough to workers impact enough negative factors determination and from them protection to do measures working exit

### **Work tasks :**

- Gardening and viticulture under the circumstances fruit and vegetables of cultivation agrotechnician and technological processes hygienic assessment ;

- Gardening and viticulture in a way village farm products cultivated labor conditions timing to do ;
- Gardening and viticulture agricultural machinery under the circumstances appearance to be physical ( temperature, humidity ), chemical ( carbon oxide, nitrogen oxides, formaldehyde, pesticides ), biological ( bacteria, fungi, helminths ) and laboratory inspections to evaluate based on ;
- Gardening and viticulture under the circumstances labor doing workers health protection to do measures working exit

### **Conclusion.**

**Research results** Gardening and viticulture fruit and vegetables in cultivation appearance to be harmful factors type and amount according to information base is created. Also, this harmful from factors workers health protection to do measure events working out, regional sanitary-epidemiological control and public health departments, rural farm departments experts for manual as is used.

**Expected scientific news.** One of the first to be gardening and viticulture vegetable and fruits in cultivation to workers impact enough harmful of factors type and amount They are determined by the influence of workers in the body appearance to be pathologies hygienic in terms of is based on. Also gardening under the circumstances fruit and vegetables agricultural machinery labor conditions is made healthy.

### **Used literatures:**

1. WHO. Healthy Workplaces: A Model for Action. Geneva, 2010.
2. ILO. Safety and health in agriculture. Geneva: ILO, 2021.
3. Jo' rayev R., To'xtayeva M., et al. “ Village farm workers health assessment ”, Medicine magazine, 2022.
4. FAO/ILO Joint Guidelines for Improving Agricultural Labor Conditions. Rome, 2019.
5. Smith J., Rodriguez P. "Occupational Hazards in Fruit Farming." Journal of Agricultural Safety and Health, 2021; 27(3): 154–163.
6. Uzbekistan Republic Labor Code of Conduct. Tashkent, 2023 publication.
7. Normurodov AN “ Village” farm of workers professional diseases and their prevent to take "paths " // Health storage Problems, 2021, No. 2, pp. 40–44.
8. FAO. Decent Rural Employment Strategy 2010–2025. Rome: FAO, 2010. <https://www.fao.org>
9. Rasulov Sh.A. “ In gardening ” agrochemical security and workers health ” // Village farm Innovations, 2023, No. 1, pp. 26–30.
10. World Bank. Improving Working and Living Conditions in Agriculture. Washington DC: World Bank Publications, 2019.
11. Toshmatov E., Khudoyberganova G. “ Labor hygiene and ergonomics "Fundamentals " // Medicine and healthy Life, 2020, No. 3, pp. 50–55.
12. USDA. Agricultural Worker Health and Safety. United States Department of Agriculture, 2022. <https://www.usda.gov>
13. Makhmudov Z. “ Viticulture” on farms ecological security and labor " Protection " // Ecology and environment protection, 2022, No. 2, pp. 14–19.
14. ADB. Sustainable Agriculture and Climate-Smart Farming in Central Asia. Asian Development Bank, 2021.

15. Musayev DB in Agroindustry safe labor environment formation Fundamentals. Monograph. Tashkent: Fan Publishing House, 2020.
16. European Agency for Safety and Health at Work. Preventing harm to agricultural workers in the EU. Luxembourg: EU Publications, 2021. <https://osha.europa.eu>