

TECHNICAL SAFETY IN GREENHOUSES

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Abstract

Working in greenhouses plays a key role in agriculture in ensuring the cultivation of various crops throughout the year. However, like any other field of activity, working in greenhouses involves certain risks for the health and safety of workers. The problem of ensuring labor protection and safety in greenhouses is becoming urgent, especially in connection with the growing demand for organic products and the expansion of the scale of production. Despite the apparent safety, work in greenhouses is fraught with many potential risks, from mechanical injuries to occupational diseases, and information on countermeasures was provided.

Keywords: greenhouse, workers, conditions, assessment of working conditions, improvement, negative factors, risk, production environment.

Introduction

Safety measures when working in greenhouses requires people working in them to wear special clothes. Before starting work, you should wear a cotton suit and waterproof shoes. In some cases, safety regulations require the use of special aprons and work gloves.

Key risks and challenges

- **Physical exercises**

Working in greenhouses often involves the need to stay in uncomfortable conditions for long periods of time and perform heavy physical work, which can lead to musculoskeletal disorders and rapid fatigue.

- **Climatic conditions**

High temperature and humidity in greenhouses create favorable conditions for the development of occupational diseases - heat stroke, dehydration, and respiratory diseases.

- **Chemical substances**

Use of fertilizers, pesticides and other agrochemicals poisoning, requires strict adherence to safety measures to prevent allergic reactions and other diseases.

- **Mechanical hazards**

Working with agricultural tools, equipment, and machinery increases the risk of injuries, cuts, and other mechanical injuries[1].



Materials and Method

Safety precautions. Training and instructions.

Regular safety and health training, training in proper work methods and use of personal protective equipment are mandatory for every greenhouse worker.

Use of personal protective equipment

Special personal protective equipment includes respirators and protective masks when working with chemicals, gloves to protect hands, special clothing and shoes[2].

Ventilation and microclimate control

Providing adequate ventilation and controlling the climatic conditions inside the greenhouse will help prevent overheating and create a safe working environment.

Compliance with sanitary-hygiene standards

Regular sanitation, handwashing, and sanitation of workplaces, equipment, and tools help maintain a high level of hygiene and prevent the spread of infectious diseases among greenhouse workers.

Regular medical examination

Periodic medical examination of workers helps to detect occupational diseases in time and take necessary measures for their treatment and prevention.

Organization of a safe workplace

Ensuring order in the workplace, the absence of foreign objects on the floor, providing unhindered access to evacuation exits and routes are the main points of organizing a safe workplace [3].

Result

Development prospects and directions

- **Process automation**

The introduction of automated climate control systems, as well as robotic systems to perform routine tasks, can reduce the physical burden on workers and minimize their contact with potentially hazardous substances.

- **Development of new personal protective equipment**

Innovations in personal protective equipment, including more effective respirators and protective clothing with improved ventilation properties, can provide greater protection to workers from harmful exposures.

- **Increasing the level of professional training**

The development of employee training and development systems, including online courses and training, will help increase employee awareness of safety rules and reduce the number of industrial accidents[4].

Discussion

Ensuring safety and health in greenhouses is a multifaceted task that requires a comprehensive approach and attention to detail. Systematic introduction of new technologies, continuous education and training of workers, as well as strict compliance with established standards and



regulations allow to significantly improve working conditions and reduce the risk to the health of employees [5]. Cooperation between employers, government agencies and the workforce on workplace safety is essential to creating an efficient and safe work environment in the greenhouse.

Conclusion

It is necessary to ensure the control of the health status of employees during periodic medical examinations. According to the results of the medical examination, employers are recommended to include long-term and frequently sick employees in the risk group. It is advisable to give micro-breaks for rest, self-massage and psychological relaxation in order to regulate the order of work and rest during the shift. Improving labor protection in greenhouse enterprises consists in protecting workers from the effects of harmful and dangerous production factors based on the development of a set of organizational and technical measures. .

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