ON THE ISSUE OF DEVELOPING SPECIAL CLOTHING TO PROTECT AGAINST PESTICIDES USED IN AGRICULTURE

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Abstract: *This article examines the disadvantages associated with specialized protective clothing designed to protect people from the harmful effects of agricultural pesticides. Based on a comprehensive analysis of the literature, the study examines the potential health risks, discomfort and practicality issues associated with these clothes. The Methods section describes the parameters taken into account in the analysis, while the Results section presents the results of various studies. The Discussion section examines the consequences of these shortcomings, leading to concluding observations and recommendations for improving security measures.*

Keywords: *Agricultural pesticides, protective clothing, health risks, discomfort, ease of use, literature review, safety measures. As agricultural practices have intensified, the use of pesticides has become commonplace. Although protective clothing is crucial to protect workers from environmental exposure, the purpose of this article is to shed light on the disadvantages associated with such specialized clothing. The discussion covers health risks, discomfort, and practicality issues, emphasizing the need for a balanced approach to safety and comfort.*

Numerous studies have concerned the protective effectiveness of special clothing against pesticides. However, limited attention has been paid to the

potential disadvantages of these clothes. Health risks are becoming a major concern as long-term use leads to skin irritation, allergies and respiratory problems. Discomfort, including problems related to breathability and flexibility, is also a serious problem. Moreover, usability issues, such as difficulty putting on and taking off, can reduce the effectiveness of protective clothing.

The analysis examined a wide range of literature sources, including scientific articles, reports and safety recommendations. Parameters such as material composition, design features and real user experience were evaluated to understand the limitations of special protective clothing against pesticides.

Although special clothing designed to protect against pesticides in agriculture provides essential safeguards for workers, it also has some disadvantages. Here are some common disadvantages:

1. Heat and discomfort: - Specialized protective clothing often tends to be thick and impervious to pesticides, resulting in reduced breathability. This can lead to increased body temperature, discomfort and heat stress in workers, especially in hot and humid climates.

The use of special protective clothing, which is designed to protect against pesticides, can create problems related to heat and discomfort for workers. Several factors contribute to this problem:

o Insulation and thickness: Protective clothing is often made of thick materials and provides insulation to prevent pesticides from getting on the skin. While this is important for safety, it can also trap heat, making it difficult for the body to cool down. o Impermeability: The impermeability of clothing, which prevents the penetration of pesticides, also limits air exchange. This reduces breathability and can lead to heat accumulation inside the clothes. o Hot and humid climate: In regions with hot and humid climates, the combination of high temperatures and humidity can exacerbate the heat stress experienced by workers. The body's natural cooling mechanisms, such as sweating, may be less effective in such conditions. o Physical activity: Agricultural work often involves physical exertion, and wearing thick, impenetrable clothing can further increase the body's

heat output. This can contribute to fatigue and discomfort. To solve these problems.

It is crucial that employers and employees are aware of the potential risks associated with heat stress and discomfort. Proper training to prevent heat stress, frequent breaks, hydration and acclimatization to the work environment can all contribute to the well-being of workers in these conditions. In addition, the introduction of technical controls, such as shaded recreation areas and proper ventilation, can help mitigate the effects of heat stress.

2. Limited mobility: - The design of protective clothing may limit the range of movement of workers. This limitation may hinder their ability to perform tasks effectively, resulting in reduced productivity and potential security risks. 3. Bulky character: - PPE (personal protective equipment) can be heavy and bulky when exposed to pesticides, which makes it difficult for workers to wear them for a long time. This can contribute to overwork and reduce the overall effectiveness of protective equipment.

4. Communication difficulties: - The use of hoods, masks and other protective equipment may interfere with effective communication between employees. Clear communication is crucial to ensure a safe work environment, and any obstacles along the way can create risks. 5. Costs and maintenance: - The purchase and maintenance of special protective clothing can be expensive. Regular inspections, cleaning and replacement of damaged equipment are necessary to ensure its effectiveness. The cost factor can be a concern, especially in small agricultural operations or with limited resources. 6. Limited protection period: - Over time, even the most durable protective clothing can become unusable, losing its effectiveness in preventing exposure to pesticides. Regular replacement of equipment is necessary to maintain proper protection, which increases overall costs. 7. Psychological impact: - Wearing protective clothing

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9. Skills and training requirements: - Proper use and care of protective clothing requires training. Workers need to be trained on how to properly wear, clean and store equipment to ensure maximum protection. Insufficient preparation can lead to improper use and compromise safety. Despite these disadvantages, the use of protective clothing is essential to minimize the health risks associated with exposure to pesticides. Efforts to address these shortcomings may include technological improvements in material design, improved ergonomic considerations, and ongoing training for agricultural workers. The identified deficiencies raise concerns about the long-term health consequences for people working in agriculture. It becomes important to balance the need for protection with considerations of comfort and practicality. It is necessary to explore alternative materials and designs that solve

Conclusions: In conclusion, although specialized protective clothing is vital to protect against pesticide exposure, its disadvantages should not be overlooked. Health risks, discomfort, and usability issues highlight the need for continuous improvement in material technology and design. Implementing a holistic approach to employee safety, including regular training and awareness-raising programs, is crucial to address these issues. To increase the effectiveness of protective clothing, research and development efforts should focus on creating materials that provide optimal protection without compromising comfort. In addition, industry stakeholders should invest in educational initiatives to ensure

the proper use and maintenance of protective equipment, reducing the risks associated with exposure to agricultural pesticides. By solving these problems, you can achieve a more effective

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