

# Health-Related Issues and Protective Practices Among Floriculturists in Bahong, La Trinidad, Benguet

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## Abstract

Floriculture, a vital sector of horticulture, involves the cultivation of flowers and ornamental plants for commercial purposes. This study examines the health-related issues and preventive practices among the floriculturists of Bahong, La Trinidad, Benguet. Quantitative research was employed using a questionnaire to gather needed data administered to 157 respondents. Results reveal a predominantly young, female workforce aged 31-40, with significant musculoskeletal and respiratory concerns linked to their physically demanding work. While floriculturists generally engage in preventive practices, improvements are needed for neurological health measures. Demographic factors such as age, marital status, and work environment significantly influence the prevalence of health issues and the extent of preventive practices. Recommendations include targeted educational programs, regular health assessments, comprehensive safety protocols, supportive work environments, and tailored interventions for high-risk groups to enhance overall well-being.

**Keywords:** Health issues, Preventive Practices, Floriculturist

## Introduction

Floriculture, a dynamic horticulture sector, exposes workers to various occupational dangers, including chemical exposure, physical strain, and psychological stress. Research has drawn more and more attention to these problems and the protective measures that can reduce them. For example, Zambrano-Moreno et al. (2020) discovered that incorrect handling and inadequate usage of personal protective equipment (PPE) caused pesticide exposure among floriculturists to lead to chronic respiratory and skin disorders. Likewise, Kakooei et al. (2019) found musculoskeletal diseases (MSDs) connected to repetitive activities and bad ergonomics; Ruiz-Jiménez et al. (2021) emphasized the psychological price of high-demand work settings. García-Rubio et al. (2020) also recorded respiratory diseases, including asthma and pollen- and dust-induced allergic rhinitis. These studies suggest a sector full of health hazards aggravated by poor implementation of safety procedures and restricted access to protective materials.

Several academics have looked at other elements affecting similar situations. According to Gupta et al. (2021), female floriculturists who typically work laboriously are more exposed to chemical and ergonomic hazards, which calls for gender-sensitive health interventions. Morais et al. (2022) discovered that while knowledge of PPE rises, actual use stays low because of discomfort, high prices, and insufficient training.

While Akinyele et al. (2021) emphasized the ripple consequences of pesticide runoff on public health, Singh et al. (2020) noted deficiencies in the regulatory enforcement of pesticide use. Zhang et al. (2023) supported sustainable farming techniques to lower pesticide dependency and improve worker safety. Aguda (2020) found in the Philippine setting that farmers were largely unaware of pesticide risks, which sometimes resulted in overuse and insufficient safety precautions. Through training, legislation, and sustainable agriculture, government policies and private sector projects like the Department of Agriculture and Earth Flora Inc. (2023) are beginning to encourage improved health and safety.

The need to handle health and safety in floriculture was made even more pressing by the COVID-19 epidemic. Pangtu et al. (2023) recorded how the crisis highlighted the need for rigorous health regulations and digital technologies to safeguard floriculturists. Notwithstanding increasing studies, significant disparities exist, particularly concerning long-term health effects and region-specific hazards. Especially in areas like Bahong, La Trinidad, and Benguet, localized research is urgently needed to reflect floriculturists' socio-economic and cultural reality. Designing efficient preventive treatments and sustainable behaviors depends on an awareness of these contextual subtleties. By evaluating the health-related concerns and the protective actions of floriculturists in Bahong, this study hopes to add to that work and guide more focused policies and community-based initiatives.

Nola Pender's Health Promotion Model (HPM) offers a systematic approach to encourage proactive health behaviors and lifestyle modifications, hence addressing occupational health hazards that floriculturists encounter. The approach stresses self-efficacy, perceived advantages, obstacles, and perceived vulnerability and severity of health hazards, all of which can influence workers' preventive behaviors. For example, although knowing of pesticide concerns, floriculturists sometimes underestimate long-term consequences (Zambrano-Moreno et al., 2020) and might ignore the advantages of regular PPE use in avoiding respiratory and musculoskeletal disorders (Morais et al., 2022; García-Rubio et al., 2020; Kakooei et al., 2019). Financial limitations, discomfort, and equipment access restrictions are among the obstacles that impede compliance (Gupta et al., 2021). However, focused interventions such as ergonomic improvements and subsidized PPE can help to overcome these barriers (Singh et al., 2020). Improving self-efficacy through practical safety training also helps to promote behavior change, especially in under-resourced environments like the Philippines (Aguda, 2020).

Furthermore, when included in group training programs, interpersonal impacts, and shared community practices—such as those shown during the COVID-19 pandemic—can strengthen health-promoting behaviors (Pangtu et al., 2023). Behavior is also influenced by situational elements such as inadequate ventilation or pollution exposure, which should be handled using environmental changes and sustainable practices (Zhang et al., 2023). At last, thorough health plans that include individual and structural elements—such as lowering chemical exposure and encouraging environmental safety—can result in more general public health improvements (Akinyele et al., 2021), therefore confirming the significance of HPM in steering efficient interventions for floriculturists.

This study aims to assess the health-related issues and protective practices among floriculturists in Bahong, La Trinidad, Benguet. Specifically, the study seeks to answer the following research questions: 1) What is the profile of the respondents in terms of the following variables: 1.1 age, 1.2 gender, 1.3 marital status, 1.4 educational attainment, 1.5 type of work, 1.6 working hours per day, 1.7 years of experience, 1.8 tasks, and 1.9 pesticide exposure? 2) What is the extent of prevalence of health-related issues among floriculturists in terms of: 2.1 musculoskeletal, 2.2 respiratory, 2.3 integumentary, and 2.4 neurological conditions? 3) What is the extent of practice among floriculturists regarding protective measures? 4) Is

there a significant difference between the extent of prevalence of health-related issues and the profile of the floriculturists? 5) Is there a significant relationship between the extent of practice on protective measures and the floriculturists' profile? 6) Is there a significant relationship between the prevalence of health-related issues and the protective practices of floriculturists? 7) What intervention program can be developed to minimize the prevalence of health-related issues and improve the implementation of protective practices among floriculturists?

### Research Method

Examining the association between occupational health hazards and protective behaviors using quantitative research techniques, especially comparative and correlational, is fundamental to the study. The comparative approach allows for evaluating variations in health-related concerns and safety measures depending on demographic factors, including age, gender, educational level, years of experience, type of employment, and pesticide exposure. This lets one find trends showing which subgroups are more vulnerable or better protected. For example, older or longer-serving employees may show a higher variety in musculoskeletal or respiratory disorders, whereas younger or less experienced floriculturists may show discrepancies in protective measures. Tuning successful interventions that target the particular hazards experienced by various members of the floriculturist community requires knowledge of these differences. On the other hand, the correlational method emphasizes determining the strength and character of the links between the degree of health problems and the frequency or sufficiency of protective measures. This study helps to identify whether destructive safety behaviors or lack of access to protective equipment are linked to greater incidence of health problems, such as integumentary, neurological, or pulmonary diseases. Research by Zhang et al. (2022) and Kumar et al. (2021) confirms this link by revealing that insufficient protective measures significantly increase agricultural workers' occupational health hazards. Research by Mishra et al. (2020) and Ranjan et al. (2021) further highlights the importance of evidence-based occupational health programs in agriculture by stressing that data-driven interventions can lower exposure-related diseases and enhance the general well-being of workers. The combination of comparative and correlational approaches in this regard not only reinforces the analytical basis of the research but also offers a route for creating pragmatic, focused plans to improve the health and safety of Bahong floriculturists.

### Respondents

Floriculturists in Bahong, La Trinidad, and Benguet were chosen as respondents for the study on health-related issues and protective practices due to their significant role in the local economy and the unique health risks associated with their profession. As a prominent area for flower production in the Philippines, floriculturists are frequently exposed to various occupational hazards, including pesticide exposure, ergonomic strain, and environmental factors that can adversely affect their health. By focusing on this specific group, the study aims to gain insights into the prevalence of health issues they face and the effectiveness of their protective practices, thereby contributing to the development of targeted interventions and policies that can enhance their well-being and safety. Additionally, understanding the health dynamics within this community can inform broader discussions on agricultural health and safety, making the floriculturists a relevant and critical population for this research.

The study's respondents were the floriculturists from Barangay Bahong, La Trinidad, and Benguet. Of the 800 floriculturists, 157 served as respondents. The sample was computed via Slovin's formula at a 7.02%

margin of error. Simple random sampling was utilized to ensure that all floriculturists in the area would have an equal chance to serve as respondents for the study.

### Data Analysis

The study's data were analyzed using a 4-point Likert scale to interpret the frequency and percentage data to understand the types of people who answered the survey and the weighted mean to determine common health problems and how many protective measures floriculturists take. Two-way ANOVA was used to investigate notable variations between health issues and protective practices in connection to the profiles of the respondents. The Pearson Correlation Coefficient was used to find the correlation between preventative measures and the frequency of health problems.

### Results and Discussions

**Table 1: Profile of the Respondents**

| Profile                       | Total |       |
|-------------------------------|-------|-------|
|                               | f     | %     |
| <b>Gender</b>                 |       |       |
| Male                          | 73    | 46.50 |
| Female                        | 84    | 53.50 |
| <b>Age</b>                    |       |       |
| 21-30                         | 32    | 20.38 |
| 31-40                         | 65    | 41.40 |
| 41-50                         | 40    | 25.48 |
| 51 and above                  | 20    | 12.74 |
| <b>Marital Status</b>         |       |       |
| Single                        | 59    | 37.58 |
| In a relationship             | 6     | 3.82  |
| Married                       | 92    | 58.60 |
| <b>Educational Attainment</b> |       |       |
| Elementary Level              | 13    | 8.28  |
| High School Level             | 64    | 40.76 |
| College Level                 | 66    | 42.04 |
| Vocational/TESDA              | 14    | 8.92  |
| <b>Type of Work</b>           |       |       |
| Green House                   | 81    | 51.59 |
| Open Field                    | 32    | 20.38 |
| Both                          | 44    | 28.03 |
| <b>Working Hours Per Day</b>  |       |       |
| 4-5                           | 21    | 13.38 |
| 6-8                           | 95    | 60.51 |
| 9-10                          | 41    | 26.11 |
| <b>Years of Experience</b>    |       |       |
| Less than 5                   | 62    | 39.49 |
| 6 to 10                       | 46    | 29.30 |

|   |            |            |
|---|------------|------------|
| 11 to 15  | 19         | 12.10      |
| 16 to 20  | 22         | 14.01      |
| 21 to 30  | 6          | 3.82       |
| More than 30  | 2          | 1.27       |
| <b>Tasks</b>  |            |            |
| Planting, Watering, Weeding, Harvesting   | 5          | 3.18       |
| Planting, Watering, Weeding, Harvesting, Pruning                                | 112        | 71.34      |
| Cultivating, Planting, Watering, Weeding, Fertilizing, Harvesting               | 13         | 8.28       |
| Cultivating, Planting, Watering, Weeding, Fertilizing, Harvesting, Pest Control | 27         | 17.20      |
| <b>Pesticide Exposure</b>   |            |            |
| Yes   | 142        | 90.45      |
| No  | 15         | 9.55       |
| <b>Total</b>  | <b>158</b> | <b>100</b> |

The demographic profile of Bahong, La Trinidad, and Benguet floriculturists shows notable trends connected to health problems and work dangers. A more significant percentage of women (53.50%) backs previous studies indicating that women are involved in floriculture, which may influence the type and frequency of chemical-related health issues. Most floriculturists are between the ages of 31 and 40 (41.40%), suggesting a middle-aged workforce typically involved in physically demanding activities, which could raise the risk of chronic diseases from continuous pesticide exposure and physical strain. Socioeconomic elements also influence health outcomes; most people are married (58.60%), maybe balancing emotional support with more financial pressure; a high degree of education—42.04% graduated from college and 40.76% high school—indicates a generally informed workforce with more excellent knowledge of occupational hazards and PPE use. With 51.59% of people working in greenhouses—settings linked with high amounts of airborne chemicals—and 60.51% of people reporting 6–8 working hours per day, which adds to weariness and more health susceptibility, work circumstances are critical. Furthermore, 39.49% lack more than five years of experience, suggesting a need for health and safety procedures education. Regular activities, including planting, watering, and harvesting (71.34%), often expose workers to pesticides; 90.45% of those polled said so, stressing the need for preventive measures, health monitoring, and education to safeguard floriculturists and maintain the sector.

**Table 2: Extent of Prevalence of Health-Related Issues Among Floriculturist in terms of Musculoskeletal**

| A. Musculoskeletal          | Mean | Qualitative Description |
|-----------------------------|------|-------------------------|
| <b>1. Upper Extremities</b> |      |                         |
| a. Fingers                  | 1.89 | Sometimes               |
| b. Hand                     | 1.96 | Sometimes               |

|                             |             |                  |
|-----------------------------|-------------|------------------|
| c. Wrist                    | z1.93       | Sometimes        |
| d. Elbow                    | 1.69        | Never            |
| <b>2. Lower Extremities</b> |             |                  |
| a. Hip                      | 1.68        | Never            |
| b. Thigh                    | 1.65        | Never            |
| c. Leg                      | 1.75        | Never            |
| d. Knee                     | 2.27        | Sometimes        |
| e. Ankle                    | 1.73        | Never            |
| <b>3. Neck</b>              | 1.63        | Never            |
| <b>4. Shoulders</b>         | 1.68        | Never            |
| <b>5. Upper back</b>        | 1.80        | Sometimes        |
| <b>6. Lower back</b>        | 2.16        | Sometimes        |
| <b>Average Mean</b>         | <b>1.83</b> | <b>Sometimes</b> |

With an average weighted mean of 1.83, Table 2 shows the musculoskeletal health problems floriculturists encounter, indicating that such problems are felt "sometimes." Though not very often, the event is notable enough to deserve notice. Reflecting the physical strain from repeated activities, including crouching, bending, and lifting, which is connected with planting and harvesting, the knee turned out to be the most impacted location, with a weighted mean of 2.27. A significant weighted mean of 2.16 for lower back discomfort indicated the effects of manual lifting and extended bending. These results highlight the need for ergonomic treatments and training on correct posture to lower the hazards connected with physically demanding agricultural activity.

On the other hand, the hip (1.68), thigh (1.65), and neck (1.63) revealed the lowest weighted averages, indicating little to no discomfort in these zones. This suggests that some bodily areas are less engaged in vigorous activity and feel less strain. These findings correspond to studies showing that specific agricultural movements specify the most stressed muscle groups. Although pain is not felt equally across all places, the statistics highlight the importance of concentrating preventive efforts on the most impacted areas—especially the knees and lower back—to protect worker health and preserve output in the floriculture industry.

**Table 3: Extent of Prevalence of Health-Related Issues Among Floriculturist in Terms of Respiratory**

| <b>B. Respiratory</b>  | <b>Mean</b> | <b>Qualitative Description</b> |
|------------------------|-------------|--------------------------------|
| 1. Shortness of breath | 1.75        | Never                          |
| 2. Asthma              | 1.56        | Never                          |
| 3. Coughing            | 2.34        | Sometimes                      |
| 4. Nasal irritation    | 1.71        | Never                          |
| 5. Sinusitis           | 1.64        | Never                          |
| 6. Sore throat         | 1.77        | Sometimes                      |
| 7. Hoarseness of voice | 1.62        | Never                          |
| <b>Average Mean</b>    | <b>1.77</b> | <b>Sometimes</b>               |



With an average weighted mean of 1.77, Table 3 shows the degree of respiratory health problems floriculturists suffer, suggesting that these symptoms happen "sometimes." This implies a moderate presence of respiratory issues that, although not serious, are consistent enough to call for preventive measures. Coughing, with a mean of 2.34, is the most often mentioned problem since it occurs regularly and probably relates to pesticide intake during floriculture operations. Following a mean of 1.77, sore throat may be related to chemical irritants or environmental variables, including dust and pollen, hence stressing the requirement of protective actions such as masks and ventilation in workspaces.

On the contrary, the least reported symptoms were asthma (1.56) and shortness of breath (1.75), both of which fell into the "never" group. These results imply that although acute symptoms exist, persistent respiratory diseases are less prevalent among floriculturists in Bahong. Constant exposure to dangerous chemicals raises the possibility of long-term respiratory problems. These findings underline the need for regular health monitoring, appropriate PPE use, and knowledge of safe pesticide handling to safeguard respiratory health and stop the onset of more severe diseases over time.

**Table 4: Extent of Prevalence of Health-Related Issues Among Floriculturist in Terms of Integumentary**

| <b>C. Integumentary</b>                | <b>Mean</b> | <b>Qualitative Description</b> |
|--|-------------|--------------------------------|
| 1. Skin blisters                       | 2.15        | Sometimes                      |
| 2. Dry and cracked skin                | 2.25        | Sometimes                      |
| 3. Skin irritation                     | 1.80        | Sometimes                      |
| 4. Skin allergy                        | 1.32        | Never                          |
| 5. Sunburn                             | 3.27        | Always                         |
| 6. Wounds or cuts                      | 2.26        | Sometimes                      |
| 7. Fungal or bacterial skin infections | 1.32        | Never                          |
| 8. Damaged nails                       | 3.09        | Often                          |
| <b>Average Mean</b>                    | <b>2.18</b> | <b>Sometimes</b>               |

With an average weighted mean of 2.18, which falls into the "sometimes" category, Table 4 shows the prevalence of integumentary health disorders among floriculturists in Bahong, La Trinidad, and Benguet. This implies that although significant skin diseases are uncommon, little signs are always present and could worsen if untreated. With a high average of 3.27, classed as "always," sunburn is the most often reported problem. This highlights the continual sun exposure floriculturists experience and stresses the critical requirement of preventive measures such as UV-protection clothes, helmets, and sunscreen. Damaged nails came next with a mean of 3.09, happening "often," perhaps due to physical labor and regular chemical handling, suggesting the need for improved protective gloves and hygiene policies. Moreover, skin allergies and fungal or bacterial illnesses were the least mentioned, averaging 1.32, suggesting they "never" happen among most responders. Although this might suggest less vulnerability to chemical exposure or efficient present hygiene measures, the possibility for these illnesses to develop with time persists. Regular skin health exams and knowledge are vital as ongoing exposure to floricultural chemicals still presents dangers. The results highlight the need for proactive skin protection and the inclusion of health education into daily work schedules to lessen the risk of integumentary problems among flower farmers.

**Table 5: Extent of Prevalence of Health-Related Issues Among Floriculturist in Terms of Neurological**

| <b>D. Neurological</b>   | <b>Mean</b> | <b>Qualitative Description</b> |
|--------------------------|-------------|--------------------------------|
| 1. Headache              | 1.75        | Never                          |
| 2. Double vision         | 1.04        | Never                          |
| 3. Body weakness         | 1.82        | Sometimes                      |
| 4. Dizziness             | 1.60        | Never                          |
| 5. Ringing of ears       | 1.30        | Never                          |
| 6. Nervousness           | 1.53        | Never                          |
| 7. Loss of concentration | 1.83        | Sometimes                      |
| <b>Average Mean</b>      | <b>1.55</b> | <b>Never</b>                   |

With an average weighted mean of 1.55, Table 5 shows floriculturists' neurological health problems, suggesting that these disorders are usually "never" felt. Under the "sometimes" category, lack of focus (mean = 1.83) is the most frequently mentioned problem, perhaps caused by extended work hours, stress, or environmental distractions. With a mean of 1.82, body weakness closely follows, indicating a comparable frequency and maybe indicating the physical weariness brought on by labor-intensive activities like lifting and repeated motion. These results indicate the slight but present cognitive and physical weariness that could influence certain floriculture practitioners.

Furthermore, problems such as double vision (mean = 1.04), dizziness (mean = 1.60), ringing of ears (mean = 1.30), and anxiousness (mean = 1.53) remain low in prevalence, all characterized as "never" experienced. This suggests that floriculturists in the surveyed region rarely suffer more serious neurological issues. The data could show controlled exposure to certain dangers, including noise or toxins, and safe working practices. Although the general neurological risk is modest, the infrequent occurrence of attention problems and weariness emphasizes the need for regular evaluations and stress management programs to preserve mental and physical well-being in the floriculture industry.

**Table 6: Summary Table on the Prevalence of Health-Related Issues Among Floriculturists**

| <b>Competencies</b> | <b>Mean</b> | <b>Qualitative Description</b> |
|---------------------|-------------|--------------------------------|
| 1. Musculoskeletal  | 1.83        | Sometimes                      |
| 2. Respiratory      | 1.77        | Sometimes                      |
| 3. Integumentary    | 2.18        | Sometimes                      |
| 4. Neurological     | 1.55        | Never                          |
| <b>Average Mean</b> | <b>1.83</b> | <b>Sometimes</b>               |

Floriculturists in Bahong, La Trinidad, and Benguet contend with various health-related problems covering musculoskeletal, respiratory, integumentary, and neurological fields. From musculoskeletal to respiratory, integumentary to neurological, floriculturists in Bahong, La Trinidad, and Benguet experience various health-related problems. Based on the average weighted mean of 1.83, these problems occur "sometimes," indicating a moderate but clear presence of occupational health difficulties. Among these, integumentary health stood out as the most regularly mentioned, averaging 2.18, primarily because of ongoing sun and chemical exposure, which typically caused problems including sunburn and broken nails.



Following closely were musculoskeletal issues, with back and knee pain frequently mentioned—probably from continuous bending, lifting, and long hours of hard labor. These results highlight the need for protective measures, ergonomic interventions, and the physically demanding character of floriculture. There were also respiratory issues, with an average weighted mean of 1.77, emphasizing the danger chemical exposure and environmental irritants such as pollen and dust cause. Promoting the regular use of PPE and offering safety training can assist in lowering respiratory symptoms like sore throat and cough. Scoring a mean of 1.55, neurological problems were the least common, suggesting they are "never" or seldom experienced. Although this can indicate comparatively better circumstances regarding neurotoxic exposure, long-term monitoring and ongoing health education are crucial to avoid the delayed beginning of symptoms. Our findings underline the necessity of continuous assistance, safety rules, and focused health initiatives to protect floriculturists' well-being.

**Table 7: F-test and T-test Results on the Significant Difference between the Prevalence of Health-Related Issues Among Floriculturists and their Profile**

| Profile                | Mean | Qualitative Description | t-value / f-value | p-value | Remarks         | Decision  |
|------------------------|------|-------------------------|-------------------|---------|-----------------|-----------|
| Gender                 |      |                         | 1.26              | 0.26    | Not significant | Accept Ho |
| Male                   | 1.84 | Sometimes               |                   |         |                 |           |
| Female                 | 1.85 | Sometimes               |                   |         |                 |           |
| Age                    |      |                         | 5.23              | 0.00    | Significant     | Reject Ho |
| 21-30                  | 1.66 | Never                   |                   |         |                 |           |
| 31-40                  | 1.83 | Sometimes               |                   |         |                 |           |
| 41-50                  | 1.96 | Sometimes               |                   |         |                 |           |
| 51 and above           | 2.04 | Sometimes               |                   |         |                 |           |
| Marital Status         |      |                         | 14.03             | 0.00    | Significant     | Reject Ho |
| Single                 | 1.79 | Sometimes               |                   |         |                 |           |
| In a relationship      | 1.75 | Never                   |                   |         |                 |           |
| Married                | 1.97 | Sometimes               |                   |         |                 |           |
| Educational Attainment |      |                         | 0.27              | 0.85    | Not significant | Accept Ho |
| Elementary Level       | 1.87 | Sometimes               |                   |         |                 |           |
| High School Level      | 1.87 | Sometimes               |                   |         |                 |           |
| College Level          | 1.82 | Sometimes               |                   |         |                 |           |
| Vocational/TESDA       | 1.81 | Sometimes               |                   |         |                 |           |
| Type of Work           |      |                         | 3.93              | 0.02    | Significant     | Reject Ho |
| Green House            | 1.77 | Sometimes               |                   |         |                 |           |
| Open Field             | 1.92 | Sometimes               |                   |         |                 |           |
| Both                   | 2.02 | Sometimes               |                   |         |                 |           |
| Working Hours Per Day  |      |                         | 0.66              | 0.52    | Not significant | Accept Ho |
| 4-5                    | 1.85 | Sometimes               |                   |         |                 |           |
| 6-8                    | 1.90 | Sometimes               |                   |         |                 |           |
| 9-10                   | 1.74 | Never                   |                   |         |                 |           |

| Years of Experience   |      |           | 2.78 | 0.02 | Significant     | Reject Ho |
|---|------|-----------|------|------|-----------------|-----------|
| Less than 5   | 1.90 | Sometimes |      |      |                 |           |
| 6 to 10   | 1.85 | Sometimes |      |      |                 |           |
| 11 to 15  | 1.89 | Sometimes |      |      |                 |           |
| 16 to 20  | 1.98 | Sometimes |      |      |                 |           |
| 21 to 30  | 1.90 | Sometimes |      |      |                 |           |
| More than 30  | 2.01 | Sometimes |      |      |                 |           |
| Tasks   |      |           | 0.69 | 0.56 | Not significant | Accept Ho |
| Planting, Watering, Weeding, Harvesting   | 2.07 | Sometimes |      |      |                 |           |
| Planting, Watering, Weeding, Harvesting, Pruning                                | 1.77 | Sometimes |      |      |                 |           |
| Cultivating, Planting, Watering, Weeding, Fertilizing, Harvesting               | 1.92 | Sometimes |      |      |                 |           |
| Cultivating, Planting, Watering, Weeding, Fertilizing, Harvesting, Pest Control | 1.88 | Sometimes |      |      |                 |           |
| Pesticide Exposure  |      |           | 0.60 | 0.44 | Not significant | Accept Ho |
| Yes   | 1.84 | Sometimes |      |      |                 |           |
| No  | 1.78 | Sometimes |      |      |                 |           |

Table 7 shows the outcomes of F-tests and t-tests assessing whether notable differences exist between floriculturists' health-related concerns and their demographic and job profiles. The results suggest that while gender, educational level, daily working hours, particular tasks, and pesticide exposure do not exhibit significant differences, age, marital status, type of employment, and years of experience greatly affect the health issues experienced. Age was crucial, with a t-value of 5.23 and a p-value of 0.00; older floriculturists, particularly those over 51, reported a higher mean score (2.04), implying more susceptibility to health problems probably connected to age-related physical deterioration. Marital status came next with a t-value of 14.03 and a p-value of 0.00, suggesting that married people (mean = 1.97) suffer more health problems, maybe as a result of increased obligations and pressure.

From an occupational background perspective, the work done had a significant influence, with a p-value of 0.02. Floriculturists operating in a greenhouse and open-field environment reported more health problems on average (2.02) than those working in one environment. This implies that several work environments could expose individuals to a more varied spectrum of chemical and physical risks. Likewise, years of experience revealed a notable correlation ( $p = 0.02$ ), with those in the field for more than 30 years averaging 2.01, hence stressing the cumulative impact of long-term exposure to physically demanding employment. These results imply that tailored interventions—such as ergonomic support for seasoned workers and environment-specific health training—could effectively reduce these hazards.

Additionally, reported health problems revealed no statistically significant correlation with gender (mean scores: males = 1.84, females = 1.85), education, or pesticide exposure, among other factors. This suggests that these elements alone should not be used to generalize therapies. A more complex method emphasizing age, experience, and work environment would likely produce more successful outcomes. These results, taken together, highlight the importance of customized health programs and preventive measures that target the fundamental factors affecting floriculturists' well-being, guaranteeing the long-term viability of their means of subsistence.

**Table 8: Post Hoc Test on the Significant Difference on the Prevalence of Health-Related Issues Among the Respondents when grouped by Age**

| Age           | 31-40 yrs old | 41-50 yrs old | 51 and above |
|---------------|---------------|---------------|--------------|
| 21-30 yrs old | 0.00          | 0.00          | 0.00         |
| 31-40 yrs old | -             | 0.08          | 0.00         |
| 41-50 yrs old | 0.08          | -             | 0.20         |
| 51 and above  | 0.00          | 0.20          | -            |

Particularly stressing the difference between younger and older workers, the post hoc test findings shown in Table 8 show notable variations in health-related concerns among floriculturists when classified by age. With p-values of 0.00, floriculturists aged 21–30 reported fewer health issues than those aged 31–40, 41–50, and 51+. These findings imply that younger employees have more physical resilience and less exposure to the physical demands of floriculture, lowering their vulnerability to chronic health problems. This difference underlines the need to put age-specific workplace interventions addressing the increasing physical vulnerability of older workers into effect.

Though not statistically significant, the 0.08 marginal p-value from comparing the 31–40 and 41–50 age groups points to a probable trend worth more investigation. Workers in their 40s might be experiencing more job stress and cumulative physical strain, which could increase their chance of developing health issues. The contrast between the 41–50 and 51+ groups, on the other hand, revealed no notable variation ( $p = 0.20$ ), suggesting that health problems might plateau or stabilize at older ages. Still, both groups probably suffer from the same chronic health issues caused by long-term exposure to floriculture activity. These findings highlight the importance of proactive health monitoring, ergonomic treatments, and consistent assessments designed for older age groups.

**Table 9: Post Hoc Test on the Significant Difference on the Prevalence of Health-Related Issues Among the Respondents when grouped by Marital Status**

| Marital Status    | In a relationship | Married |
|-------------------|-------------------|---------|
| Single            | 0.73              | 0.00    |
| In a relationship | -                 | 0.00    |
| Married           | 0.00              | -       |

The study of health-related concerns among floriculturists in Bahong, La Trinidad, and Benguet shows notable variations depending on marital status, as seen in Table 9. With married floriculturists reporting a higher prevalence of health problems, the most striking disparities were identified between single and married people. This implies that more physical and mental health problems could result from the duties

and pressures connected with marriage. By contrast, the study revealed no notable variation in health issues between single people and those in relationships, suggesting that informal connections might not have the same degree of stressors as marriage affects health results.

The notable variation between people in a relationship and those who are married highlights the particular stresses marriage may create. These results imply that official marital duties can add financial, emotional, and family-related responsibilities that compromise general health. Such outcomes draw attention to the need for focused support initiatives addressing the particular requirements of married floriculturists, including stress management tools and access to medical care. Designing efficient treatments meant to enhance the well-being of agricultural workers depends on an awareness of how marital status affects health results.

**Table 10: Post Hoc Test on the Significant Difference on the Prevalence of Health-Related Issues Among the Respondents when grouped by Type of Work**

| Type of Work | Open Field | Both |
|--------------|------------|------|
| Greenhouse   | 0.23       | 0.00 |
| Open Field   | -          | 0.00 |
| Both         | 0.00       | -    |

Revealing notable variations depending on the kind of job done, Table 10 shows the post hoc test findings on the frequency of health problems among floriculturists. Those operating in just one environment reported fewer health-related issues than floriculturists working in greenhouses and open fields. Although there was no noticeable difference between greenhouse and open-field employees (p-value = 0.23), a notable difference appeared when comparing workers in both settings with those in greenhouses (p-value = 0.00). This implies that specific environmental stressors, such as different temperatures, direct sunshine, pesticide use, and physical strain, may raise susceptibility to a more general spectrum of health problems. The important results highlight that dual-environment employees run increased hazards. While those in greenhouses may face confined conditions and more significant chemical usage, floriculturists in open fields battle sun exposure and airborne particles. When used together, these elements increase the frequency of musculoskeletal, dermatological, and respiratory disorders. Furthermore, the contrast between those employed in both settings and those solely in open fields produced a notable outcome (p-value = 0.00), supporting the idea that dual work contexts increase health hazards. These findings highlight the necessity for thorough training courses addressing the layered risks of multi-environment work in floriculture and environment-specific safety standards.

**Table 11: Post Hoc Test on the Significant Difference on the Prevalence of Health-Related Issues Among the Respondents when grouped by Years of Experience**

| Years of Experience | of 6 to 10 years | 11 to 15 years | 16 to 20 years | 21 to 30 years | More than 30 years |
|---------------------|------------------|----------------|----------------|----------------|--------------------|
| Less than 5 years   | 0.91             | 0.97           | 0.00           | 0.54           | 0.78               |
| 6 to 10 years       | -                | 0.68           | 0.00           | 0.27           | 0.61               |
| 11 to 15 years      | 0.68             | -              | 0.15           | 0.88           | 0.92               |
| 16 to 20 years      | 0.00             | 0.15           | -              | 1.00           | 1.00               |
| 21 to 30 years      | 0.27             | 0.88           | 1.00           | -              | 1.00               |

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|                    |      |      |      |      |   |
|--------------------|------|------|------|------|---|
| More than 30 years | 0.61 | 0.92 | 1.00 | 1.00 | - |
|--------------------|------|------|------|------|---|

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The post hoc test findings in Table 11 examine the correlation between years of experience and the frequency of health problems among floriculturists. Interestingly, floriculturists with over thirty years of experience exhibited no notable variations in health problems compared to other experience groups, as evidenced by p-values above 0.05 across all comparisons. This implies that, because of the adoption of protective measures gained over years of practice, great experience alone does not always correspond with increased health risks. Experienced floriculturists probably know how to reduce environmental risk exposure, preserving more consistent health results despite their long-term employment.

Compared to individuals with fewer than five years, floriculturists with 6 to 10 years and 16 to 20 years of experience showed notable variations in health problems, with p-values of 0.00. These findings highlight a vital time in a floriculturist's career when health hazards grow clearer—probably from ongoing exposure to dust, chemicals, and physical labor without consistent or efficient protective measures. Emphasizing the necessity for focused health and safety training to avoid the buildup of adverse health consequences, this phase of moderate experience may reflect a gap in awareness or application of safety procedures.

Furthermore, no notable variations were discovered between groups with 11 to 15 years, 16 to 20 years, and 21 to 30 years of experience, suggesting that after a particular threshold, health issue frequency could level out. Increased knowledge and improved adaptation to workplace hazards—for example, through the consistent use of personal protective equipment and ergonomic practices—could explain this. These results highlight the need for early intervention and continuous education to guarantee that floriculturists use preventive health strategies before health problems become chronic. In the end, the findings highlight that although experience in floriculture can increase health concerns, these risks are not unavoidable and can be controlled with appropriate health and safety policies.

**Table 12: Extent of Practice of Preventive Measures on Musculoskeletal**

| A. Musculoskeletal   | Mean        | Qualitative Description |
|--|-------------|-------------------------|
| 1. Taking regular breaks to do some stretching.                                | 3.09        | Often                   |
| 2. Use proper lifting techniques.  | 2.87        | Often                   |
| 3. Use proper positioning and posture when working.                            | 3.04        | Often                   |
| 4. Use of proper equipment with appropriate weight, length, and effectiveness. | 1.60        | Never                   |
| 5. Have someone massage the painful part of my body.                           | 1.80        | Sometimes               |
| 6. Take a warm bath after work.  | 3.10        | Often                   |
| 7. Uses abdominal binder when lifting.   | 1.25        | Never                   |
| 8. Stretching  | 3.06        | Often                   |
| 9. I seek assistance for every complicated task such as lifting heavy objects. | 2.74        | Often                   |
| <b>Average Mean</b>  | <b>2.51</b> | <b>Often</b>            |

Table 12 offers a valuable analysis of how floriculturists in Bahong, La Trinidad, and Benguet control their musculoskeletal health. Averages of 2.51 on a weighted mean indicate that preventive actions are "often" practiced. This shows a fair degree of knowledge and use of musculoskeletal care, suggesting that although preventive measures are acknowledged, they might not be regularly or uniformly followed. A clearer picture of which practices are more often included in daily routines and which are not fully embraced comes from using weighted means depending on response frequency.

Among the most often used techniques are keeping appropriate posture while working (3.04), regular stretching breaks (3.09), and taking a warm bath after work (3.10). Reducing physical strain depends on these techniques, often advised for demanding jobs. Good posture stops joint and spine pain; stretching increases circulation and flexibility; warm baths decrease muscular tiredness. These habits imply that floriculturists know of instant self-care techniques that offer respite following lengthy labor hours, particularly in physically taxing settings like greenhouses and open fields.

The practices with the lowest mean ratings, on the other hand, indicate important deficiencies. Significantly less common are using appropriately weighted and sized tools (1.60), wearing an abdominal binder when lifting (1.25), and requesting assistance with heavy duties (2.74). These point to little involvement with injury prevention tactics, which need particular tools or modifications. The low frequency of these activities implies that many floriculturists either lack access to ergonomic gear or feel driven to work alone despite the hazards. These results highlight the need for intervention programs that promote cooperative work practices, show safe lifting procedures, and provide access to appropriate tools to lower the prevalence of long-term musculoskeletal disorders.

**Table 13: Extent of Practice of Preventive Measures on Respiratory**

| <b>B. Respiratory</b>   | <b>Mean</b> | <b>Qualitative Description</b> |
|---|-------------|--------------------------------|
| 1. Use of facemask  | 2.51        | Often                          |
| 2. Use of neck gaiter   | 1.94        | Sometimes                      |
| 3. Use of Baclava or face shield  | 1.85        | Sometimes                      |
| 4. Avoiding downwind or strong wind directions when spraying pesticide  | 2.48        | Sometimes                      |
| 5. Limiting amount of time spent in enclosed chemical-filled spaces like greenhouses                                    | 2.89        | Often                          |
| 6. Avoid burning empty containers of pesticides   | 3.38        | Always                         |
| 7. Proper disposal of empty containers and equipment used in spraying   | 3.54        | Always                         |
| 8. I have regular breaks to allow for mask removal and proper ventilation   | 2.92        | Often                          |
| 9. I do not spray when I have a ill   | 3.61        | Always                         |
| 10. I eat and drink inside the greenhouse   | 2.10        | Sometimes                      |
| 11. I follow the pesticide label instructions   | 2.78        | Often                          |
| 12. I had training on safe handling and application of fertilizers, pesticides and other chemicals to minimize exposure | 2.00        | Sometimes                      |



|   |             |              |
|---|-------------|--------------|
| 13. I undergo regular check-ups to monitor for any respiratory issues | 1.92        | Sometimes    |
| <b>Average Mean</b>   | <b>2.61</b> | <b>Often</b> |

With an average weighted mean of 2.61, Table 13 shows that Bahong, La Trinidad, and Benguet floriculturists typically employ moderate prevention techniques to control their respiratory health. This suggests that although they know the hazards connected to their employment, such as pesticide inhalation and airborne irritants, they might not always use all conceivable protective strategies. The findings support earlier studies emphasizing the need for preventative measures in agricultural settings to lower health concerns. The statistics show a balance of knowledge and the need to strengthen these techniques in floriculture environments.

Among the most often employed preventive strategies, floriculturists give correct disposal of empty pesticide containers (3.38), avoidance of spraying while sick (3.61), and not burning empty pesticide containers (3.38) as top priorities. These actions are classified as "Always," implying that floriculturists accept their duty in minimizing health and environmental risks. These activities draw attention to rising awareness of health and environmental consequences, such as lowering chemical exposure through appropriate waste management. Furthermore, the habit of not spraying when sick shows a deliberate effort to preserve a better and safer workplace for both the person and their peers.

Regular health check-ups (1.92), use of balaclavas or face shields (1.85), and neck gaiters (1.94) all show lower average ratings, suggesting that some preventive actions are less often practiced. These behaviors, categorized as "Sometimes," suggest that floriculturists do not always prioritize health monitoring or sophisticated protective equipment. Early detection and prevention of respiratory problems depend on regular health check-ups, but these results imply that such practices are not yet habitual. A lack of understanding or access could explain the low use of sophisticated protective equipment. This would justify focused educational campaigns stressing the need for thorough protective gear and regular health checks in controlling respiratory hazards.

**Table 14: Extent of Practice of Preventive Measures on Integumentary**

| C. Integumentary   | Mean        | Qualitative Description |
|--|-------------|-------------------------|
| 1. Wearing gloves  | 3.20        | Often                   |
| 2. Wearing long sleeves                                    | 3.66        | Always                  |
| 3. Wearing long pants                                      | 3.87        | Always                  |
| 4. Wearing wide-brimmed hats                               | 2.89        | Often                   |
| 5. Wearing rubber shoes                                    | 3.84        | Always                  |
| 6. Drinking lots of water                                  | 3.17        | Often                   |
| 7. I wear separate clothes at home and on the farm         | 3.56        | Always                  |
| 8. I seek medical help if my skin problems persist         | 2.37        | Sometimes               |
| 9. I undergo regular check-ups to any integumentary issues | 2.22        | Sometimes               |
| <b>Average Mean</b>  | <b>3.20</b> | <b>Often</b>            |

With an average weighted mean of 3.20, Table 14 examines how floriculturists participate in preventive actions concerning their integumentary health. This implies that although they sometimes use preventive techniques, more work is still needed. Skin health especially needs care, given the dangers of floriculture,

including sun exposure, chemical contact, and physical traumas. Consistent with studies stressing the significance of safety measures to reduce skin-related health concerns in agricultural settings, the results show a reasonable knowledge of these hazards and an appreciation of the need for protective actions.

Floriculturists' top three stated preventive measures include wearing long pants (3.87), wearing rubber shoes (3.84), and wearing long sleeves (3.66). These behaviors were dedicated to reducing exposure to dangerous chemicals and physical hazards and were classified as "Always." Reducing dangers connected with chemicals and environmental concerns depends on emphasizing protective clothing, especially long pants and sleeves. Studies showing that appropriate clothing helps protect workers from skin damage and hazardous exposure support this conclusion. These findings highlight the need for clothes to protect workers' integumentary health, especially in physically demanding agricultural activities.

Conversely, the methods with the lowest average scores show places where floriculturists are less consistent. All scored pretty low: "Wearing wide-brimmed hats" (2.89), "seeking medical help if skin problems persist" (2.37), and "undergoing regular check-ups for any integumentary issues" (2.22). These findings imply that although daily work practices prioritize skin protection, there is less focus on proactive medical intervention for skin-related concerns and regular health monitoring. This pattern is troubling since early detection and treatment of skin disorders are vital to avoid long-term health problems like skin cancer or chronic irritations, which are prevalent among agricultural workers because of continuous sun exposure and chemical use.

The significantly lower average for wearing wide-brimmed hats (2.89), classified as "Often," implies that although floriculturists utilize sun protection to some degree, it is not always prioritized. This result supports studies showing that many agricultural workers ignore sun protection, raising their risk of long-term skin damage. Likewise, floriculturists said "drinking lots of water" at a mean of 3.17, classified as "Often," thus stressing hydration as a key habit. Maintaining skin health depends on adequate hydration, especially in outdoor work settings where sun exposure and physical activity could cause dehydration. These results highlight the importance of continuous education and training to support thorough skin protection measures, including appropriate sun safety and hydration strategies, to improve floriculturists' general integumentary health.

**Table 15: Extent of Practice of Preventive Measures on Neurological**

| <b>D. Neurological</b>  | <b>Mean</b> | <b>Qualitative Description</b> |
|---|-------------|--------------------------------|
| 1. Wearing facemasks  | 2.82        | Often                          |
| 2. Wearing goggles  | 1.10        | Never                          |
| 3. Wearing respirators  | 1.04        | Never                          |
| 4. I use gloves to and other appropriate protective gear when handling organic fertilizers and pesticides | 1.95        | Sometimes                      |
| 5. I do handwashing after preparing pesticides or fertilizers and after spraying pesticides               | 3.42        | Always                         |
| 6. I bathe after spraying pesticides  | 3.03        | Often                          |
| 7. I follow wind direction when spraying pesticides   | 2.32        | Sometimes                      |
| <b>Average Mean</b>   | <b>2.24</b> | <b>Sometimes</b>               |

With an average weighted mean of 2.24, Table 15 shows the degree of preventive activities floriculturists follow to protect their neurological health. This score suggests that although preventive measures are usually followed "sometimes," more consistency and adherence to these procedures is needed. The results imply that although floriculturists are somewhat conscious of the neurological hazards connected to their workplace, especially those linked to pesticide and fertilizer exposure, more work is needed to improve preventive tactics to reduce these hazards properly.

Of the preventive actions, handwashing after preparing or spraying pesticides scored the highest at 3.42, classified as "always." This suggests that floriculturists prioritize this approach to avoid chemical exposure, which is vital for lowering neurological health concerns. Preventing the absorption of hazardous chemicals depends on hand hygiene, a practice highlighted by studies stressing that regular handwashing can significantly lower chemical exposure and associated health problems, especially in agricultural settings where pesticide handling is common.

After handwashing, the second highest average score was bathing after spraying pesticides (3.03), deemed "often." This approach is particularly crucial since it removes chemical residues from the skin that could be absorbed, causing neurological damage. Research shows that post-exposure bathing is essential to avoid dangerous chemical absorption, which could cause long-term health effects, including neurological diseases. Floriculturists understand the importance of this habit in lowering their exposure to dangerous chemicals and safeguarding their brain health.

The statistics, meantime, also show notable discrepancies in preventive measures. The three items with the lowest means—wearing goggles (1.10), wearing respirators (1.04), and using gloves while handling fertilizers and pesticides (1.95)—show a troubling absence of protective precautions against chemical exposure. The abysmal compliance with wearing goggles and respirators is particularly concerning since these two actions are necessary to shield workers from eye and respiratory damage brought on by airborne contaminants. Insufficient personal protection equipment (PPE) usage has been a continuing problem in the floriculture sector, causing long-term neurological problems. As research has indicated, improving the use of thorough PPE is vital in reducing these hazards, thereby highlighting the importance of focused educational campaigns to encourage floriculturists' improved protective practices.

**Table 16: Summary Table on the Preventive Measures**

| Competencies        | Mean        | Qualitative Description |
|---------------------|-------------|-------------------------|
| 1. Musculoskeletal  | 2.51        | Often                   |
| 2. Respiratory      | 2.61        | Often                   |
| 3. Integumentary    | 3.20        | Often                   |
| 4. Neurological     | 2.24        | Sometimes               |
| <b>Average Mean</b> | <b>2.64</b> | <b>Often</b>            |

The study of health concerns and preventive measures among floriculturists reveals significant insights into their skills relating to occupational health. Averages of 2.64 for the preventative measures across several health areas suggest that these activities are usually followed "often." Reflecting awareness and the need for such precautions in their everyday job, this average indicates moderate involvement with health and safety practices among floriculturists. On the other hand, it highlights areas needing work to improve general occupational health.

Integumentary (3.20), classified as "often," had the highest average of the skills evaluated. This suggests that floriculturists are relatively conscientious about safeguarding their skin and general integumentary system from exposure to dangerous chemicals. Agricultural workers are at risk of skin diseases from pesticide exposure and other chemicals. Hence, the focus on skin protection is vital. Using protective clothes and consistent skincare practices helps lower these risks significantly, which is in line with research showing that appropriate protective actions can help minimize adverse health effects.

Following integumentary techniques, respiratory competence averages 2.61, which is likewise classified as "often." This implies that floriculturists are conscious of the need for respiratory protection when handling dust, pesticides, and other airborne irritants. Preventing respiratory diseases depends on using masks and respirators, particularly when pesticide exposure happens regularly. Regular usage of respiratory protection devices can significantly lower the rate of respiratory infections among agricultural workers.

On the other hand, the musculoskeletal competency average is 2.51, which is considered "often." Although this shows some techniques to avoid musculoskeletal problems, it is lower than the other competencies. Given the prevalence of musculoskeletal problems among workers in physically demanding occupations like floriculture, this disparity draws attention to a possible area for development. Reducing the risk of such conditions can be achieved using ergonomic techniques and supporting frequent breaks, which can be attributed to neurological competency (2.24), which falls under "sometimes," the lowest average score. This points to a worrisome disregard for policies safeguarding against neurological risks connected to pesticide exposure. Given the possible long-term consequences of chemical exposure on brain health, the low use of protective equipment, including gloves and goggles, is especially concerning.

**Table 17: F-test and T-test Results on the Significant Difference between the Extent of Practice of Preventive Measures and their Profile**

|                               | Mean | Qualitative Description | t-value / f-value | p-value | Remarks         | Decision  |
|-------------------------------|------|-------------------------|-------------------|---------|-----------------|-----------|
| <b>Gender</b>                 |      |                         | 0.50              | 0.48    | Not Significant | Accept Ho |
| Male                          | 2.62 | Often                   |                   |         |                 |           |
| Female                        | 2.59 | Often                   |                   |         |                 |           |
| <b>Age</b>                    |      |                         | 25.88             | 0.00    | Significant     | Reject Ho |
| 21-30                         | 2.36 | Sometimes               |                   |         |                 |           |
| 31-40                         | 2.74 | Often                   |                   |         |                 |           |
| 41-50                         | 2.76 | Often                   |                   |         |                 |           |
| 51 and above                  | 2.59 | Often                   |                   |         |                 |           |
| <b>Marital Status</b>         |      |                         | 15.52             | 0.00    | Significant     | Reject Ho |
| Single                        | 2.65 | Often                   |                   |         |                 |           |
| In a relationship             | 2.62 | Often                   |                   |         |                 |           |
| Married                       | 2.67 | Often                   |                   |         |                 |           |
| <b>Educational Attainment</b> |      |                         | 3.20              | 0.03    | Significant     | Reject Ho |
| Elementary Level              | 2.69 | Often                   |                   |         |                 |           |
| High School Level             | 2.63 | Often                   |                   |         |                 |           |
| College Level                 | 2.65 | Often                   |                   |         |                 |           |

|  |      |       |       |      |                 |           |
|--|------|-------|-------|------|-----------------|-----------|
| Vocational/TESDA   | 2.78 | Often |       |      |                 |           |
| <b>Type of Work</b>  |      |       | 0.35  | 0.71 | Not Significant | Accept Ho |
| Green House  | 2.59 | Often |       |      |                 |           |
| Open Field   | 2.54 | Often |       |      |                 |           |
| Both   | 2.68 | Often |       |      |                 |           |
| <b>Working Hours Per Day</b>   |      |       | 11.40 | 0.00 | Significant     | Reject Ho |
| 4-5  | 2.76 | Often |       |      |                 |           |
| 6-8  | 2.67 | Often |       |      |                 |           |
| 9-10   | 2.60 | Often |       |      |                 |           |
| <b>Years of Experience</b>   |      |       | 1.38  | 0.23 | Not Significant | Accept Ho |
| Less than 5  | 2.66 | Often |       |      |                 |           |
| 6 to 10  | 2.63 | Often |       |      |                 |           |
| 11 to 15   | 2.70 | Often |       |      |                 |           |
| 16 to 20   | 2.73 | Often |       |      |                 |           |
| 21 to 30   | 2.59 | Often |       |      |                 |           |
| More than 30   | 2.63 | Often |       |      |                 |           |
| <b>Tasks</b>   |      |       | 1.63  | 0.19 | Not Significant | Accept Ho |
| Planting, Watering, Weeding, Harvesting  | 2.62 | Often |       |      |                 |           |
| Planting, Watering, Weeding, Harvesting, Pruning                               | 2.62 | Often |       |      |                 |           |
| Cultivating, Planting, Watering, Weeding Fertilizing, Harvesting               | 2.62 | Often |       |      |                 |           |
| Cultivating, Planting, Watering, Weeding Fertilizing, Harvesting, Pest Control | 2.54 | Often |       |      |                 |           |
| <b>Pesticide Exposure</b>  |      |       | 1.46  | 0.23 | Not Significant | Accept Ho |
| Yes  | 2.62 | Often |       |      |                 |           |
| No   | 2.52 | Often |       |      |                 |           |

Table 17 analyses the correlation between demographic variables and the degree of preventive actions undertaken. Based on age, marital status, educational level, and daily work hours, the statistical analysis—including F-tests and t-tests—uncovers notable variations in the degree of practice. Significant variations,

however, were not seen in gender, kind of employment, years of experience, tasks completed, or pesticide exposure. This study helps to clarify how different demographic variables affect health behaviors in the floriculture sector.

With little differences across other demographic groups, the overall mean scores for preventive behaviors suggest that floriculturists usually participate in these measures "Often." For example, the average scores for gender reveal that male (2.62) and female (2.59) floriculturists implement preventative measures at comparable levels, hence producing a non-significant outcome (p-value = 0.50). With both male and female employees equally conscious of the need for preventive measures, this result implies that gender does not much affect health behaviors in agricultural environments.

With a p-value of 0.00, age significantly influenced the degree of preventative behaviors. The mean scores show that older age groups (31-40 years and 41-50 years) reported practicing "Often" (2.74 and 2.76, respectively), while younger floriculturists (21-30 years) reported practicing preventive measures "Sometimes" (2.36). This tendency implies that older workers could be more knowledgeable and experienced about the need for health and safety procedures.

With a p-value of 0.00, marital status also revealed a notable variation in the degree of preventive activities. The average scores for single (2.65), in a relationship (2.62), and married (2.67) floriculturists suggest that marital status could affect health behaviors. Married people might feel more responsible for their health and safety since they might think about their family's welfare. With a p-value of 0.03, educational attainment was another important element. Mean scores for various educational levels—elementary: 2.69, high school: 2.63, college: 2.65, vocational/TESDA: 2.78—suggest that persons with vocational training might conduct preventive actions more often. This pattern could suggest that extended working hours might cause weariness, influencing the focus on health habits.

**Table 18: Post Hoc Test on the Significant Difference on the Respondent’s Preventive Practices when Grouped by Age**

| Age           | 31-40 yrs old | 41-50 yrs old | 51 and above |
|---------------|---------------|---------------|--------------|
| 21-30 yrs old | 0.00          | 0.00          | 0.00         |
| 31-40 yrs old | -             | 0.60          | 0.00         |
| 41-50 yrs old | 0.60          | -             | 0.00         |
| 51 and above  | 0.00          | 0.00          | -            |

The post hoc test results shown in Table 18 show notable variations in the preventative practices of the respondents when classified by age, especially between younger and older age groups. With p-values of 0.00 across the board, the results reveal that the younger age group (21-30 years) reported far lower preventative practices than older age groups (31-40 years, 41-50 years, and 51 years and above). This implies that younger floriculturists might not have the knowledge or experience to prioritize health and safety precautions.

The findings show a mean difference of 0.60 for the 31-40 age group compared to the 21-30 group, implying that people in this age range are more likely to participate in preventative activities. The 41-50 age group continues this trend, showing a notable difference from the younger group as well. These results imply that older employees could have more expertise and knowledge in the sector, which would cause more focus on preventive actions.



The findings with a p-value of 0.60 reveal no notable variation in preventative behaviors across the age groups of 31-40 and 41-50 years. This implies that both groups participate in comparable preventive activities, suggesting that health awareness and habits could level off as workers mature into their 40s. A mix of reasons could explain this, including knowledge of hazards and possible compliance with health practices as sector expertise increases.

The absence of notable variations between the 41-50 years and 51 years and older age groups emphasizes the necessity of continuous education and training in health practices, particularly among older workers. Although senior floriculturists may be pretty knowledgeable, it is crucial always to stress the need for preventive actions to reduce health hazards. This emphasizes the need for constant training and health practice updates, especially in floriculture sectors where chemical exposure and physical work can create major health concerns.

**Table 19: Post Hoc Test on the Significant Difference on the Respondent’s Preventive Practices when Grouped by Marital Status**

| Marital Status    | In a relationship | Married |
|-------------------|-------------------|---------|
| Single            | 0.41              | 0.00    |
| In a relationship | -                 | 0.02    |
| Married           | 0.02              | -       |

The post hoc test findings in Table 19 reveal that single floriculturists have different preventive strategies than those married or in relationships. Specifically, the data shows a p-value of 0.00 when comparing single people to married ones, implying that marital status significantly impacts the degree of preventive measures taken by floriculturists. This result emphasizes the possible influence of human interactions on health behaviors in agricultural environments.

The findings show that single floriculturists have a mean difference of 0.41 compared to couples, implying that people in relationships might be more regular in their preventive activities. A p-value of 0.02 reveals a notable difference between those in relationships and married people, which helps to support this tendency even more. These results imply that people in dedicated relationships could prioritize their health because of their sense of duty towards their partners, influencing health behaviors to guarantee their well-being.

The notable difference between single and married people (p-value = 0.00) implies that married floriculturists might be more conscious of health hazards and preventive actions. Married people may feel a higher desire to keep their health for their families. Hence, this could be ascribed to the added obligations of marriage. This result implies that the duty of raising a family could inspire more preventive health actions.

Conversely, the lack of notable difference between those in a relationship and married people (p-value = 0.02) implies that although both groups practice preventative measures, married people may still have a minor advantage in their health behaviors. This would imply that the more intense sense of duty toward health and safety measures produced by marriage comes from the long-term dedication linked with it. Marriage stability and long-term dedication offer a stronger basis for implementing preventive actions than more informal partnerships.

**Table 20: Post Hoc Test on the Significant Difference on the Respondent’s Preventive Practices when Grouped by Educational Attainment**

| <b>Educational Attainment</b> | <b>High School Level</b> | <b>College Level</b> | <b>Vocational/TESDA</b> |
|-------------------------------|--------------------------|----------------------|-------------------------|
| Elementary Level              | 0.08                     | 0.85                 | 0.01                    |
| High School Level             | -                        | 0.04                 | 0.00                    |
| College Level                 | 0.04                     | -                    | 0.00                    |
| Vocational/TESDA              | 0.00                     | 0.00                 | -                       |

The study of preventative behaviors among floriculturists—especially their educational level—shows notable new information on how education affects health and safety policies in this field, as indicated in Table 20. Results of post hoc tests show different degrees of preventive activities depending on educational background.

Among the educational categories evaluated, the vocational/TESDA group exhibits a notable variation in preventive actions relative to other educational levels. A p-value of 0.01 shows a significant difference between vocational training and compliance with preventive measures. This implies that vocational training programs, which emphasize practical skills and safety regulations, provide workers with the required knowledge to apply appropriate safety measures, especially in high-risk settings such as floriculture.

High school-level respondents show an increasing p-value of 0.04 compared to college-level participation, suggesting a modest significance in the differences between these groups. This implies that those with a high school education would have less awareness or implementation of preventive actions than their college-educated equivalents. Typically, higher education levels correlate with a better knowledge of preventive techniques and occupational health hazards.

Moreover, the elementary-level respondents exhibit slight variation in preventative measures across all educational comparisons, with p-values suggesting no significant differences (0.08 with high school and 0.85 with college). This lack of difference implies that those with just elementary education might not be sufficiently aware of the need for preventive actions in their workplace. Reducing workplace hazards depends on knowledge of health risks and safety procedures, which low educational levels can limit access.

**Table 21: Post Hoc Test on the Significant Difference on the Respondent’s Preventive Practices when Grouped by Working Hours**

| <b>Working Hours</b> | <b>6-8 hours</b> | <b>9-10 hours</b> |
|----------------------|------------------|-------------------|
| 4-5 hours            | 0.00             | 0.00              |
| 6-8 hours            | -                | 0.10              |
| 9-10 hours           | 0.10             | -                 |

Table 21 offers significant insights into how the length of work influences compliance with health and safety policies by looking at preventive behaviors among floriculturists depending on working hours. Especially between those working 4–5 hours and those with longer shifts, the post hoc test findings reveal notable variations in preventative actions among groups with different work durations. These results imply that higher health hazards and reduced adherence to safety standards could be related to longer working hours.

With a p-value of 0.00, the data shows a notable difference between the 4–5 hours and 6–8 hours groups. This implies that people who work shorter hours tend to see preventive actions more regularly. Shorter shift workers might feel less tired, which could help them be more alert to safety practices. Conversely, those who work longer hours could get physically or psychologically tired, which could cause lapses in health-conscious activities.

By comparison, the 6–8 hours and 9–10 hours groups' p-value of 0.10 shows lower significance. Although there might still be variations in safety procedures between these groups, the difference is not as noticeable. Though it might level off as hours rise past a particular threshold, the decline in preventive behavior could still be evident. These findings suggest a threshold beyond which weariness may steadily compromise safety compliance, independent of additional working hours.

The study emphasizes the significance of appropriate control of floriculture work schedules—extended hours without adequate sleep harm job safety and well-being. Policies limiting daily work hours or requiring regular breaks encourage floriculturists to apply preventive measures more consistently and lower the likelihood of health problems.

**Table 22: Pearson Correlation Results on Significant Relationship between the Health-Related Issues among Floriculturist and their Preventive Practices**

| Variables             | Mean | r-computed | p-value | Remark      | Decision  |
|-----------------------|------|------------|---------|-------------|-----------|
| Health-Related Issues | 1.83 | 0.38       | 0.00    | Significant | Reject Ho |
| Preventive Practices  | 2.65 |            |         |             |           |

Table 22 shows a significant link between health-related problems and the level of floriculturists' preventive activities. The Pearson correlation analysis reveals a p-value of 0.00 and a correlation coefficient of 0.38, suggesting a modest, statistically significant positive association. This implies that when floriculturists grow more conscious of health-related issues, they are more likely to follow safety measures to safeguard themselves.

Occasional health problems among employees are suggested by the mean score of 1.83 for health-related concerns, read as "Sometimes." By contrast, the average preventative practice score— 2.65 ("Often")—reflects instead regular execution of safety behaviors. This difference suggests that even if health issues are not always present, employees are still consistently following preventive actions—maybe as a proactive reaction to past experiences or general health risk awareness.

The p-value's (0.00) relevance confirms the link between health issues and the adoption of preventive measures. More focus on personal health, whether via direct experience or education, can be important in inspiring floriculturists to participate in preventative actions. This strengthens the argument for more strong health awareness campaigns in farming areas.

Moreover, the good link emphasizes the importance of organized interventions, including health education, training courses, and workplace wellness campaigns. These projects could increase the workers' dedication to safety and well-being by strengthening knowledge about typical occupational dangers, including pesticide exposure and repetitive physical duties, lowering job-related diseases and injuries.

**Conclusion**

Most respondents were female, aged 31–40, married, high school graduates, and with less than five years of experience, suggesting a relatively young and developing workforce. The profile of floriculturists offers

important demographic and occupational insights required to grasp their health-related issues. Though not all health conditions are equally common, musculoskeletal and respiratory problems are the most often reported, perhaps related to the physically demanding floriculture industry. Though areas like neurological health protection need more focus, the respondents usually show a good attitude toward preventive behaviors and often participate in protective activities, demonstrating an understanding of health hazards. Significant variations in the frequency of health problems are seen across factors including age, marital status, job type, and experience; older, married people and those in mixed work environments report more problems; the degree of practicing preventive measures is especially affected by age, marital status, education, and working hours, implying a relationship between demographic traits and safety behavior. Finally, a notable positive link between the frequency of health issues and preventative measures implies that floriculturists may increase their protective efforts as health problems become more common.

### Recommendations

Targeted educational programs should be carried out to fit floriculturists' different educational backgrounds, therefore improving health and safety. Workshops and training courses meant to increase awareness of typical occupational health hazards and the need for preventive practices, especially for younger and less experienced workers, will help to achieve this goal. Annual check-ups and screenings run by employers should promote regular health examinations, particularly for older floriculturists, so identifying and addressing musculoskeletal, respiratory, and integumentary problems early on. Employers should also create and implement unambiguous safety policies to reduce dangerous exposure, particularly to pesticides, including appropriate training in using personal protective equipment (PPE), including gloves and masks. Promoting a supportive work culture through peer support groups or health committees helps employees effectively address and control health issues. Flexible scheduling and mandatory break intervals can lower fatigue and stress as well. Finally, specialized treatments for high-risk groups, such as ergonomic training for older workers or stress management seminars for those in demanding roles, can efficiently handle health issues particular to various sectors of the floriculture workforce.

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