

Specification of Competency Standards
for the Arboriculture & Horticulture Industry
Unit of Competency

Functional Area - Diagnosis and Treatment of Pests and Diseases

Title	Develop work plans for disease control by means of physical and chemical methods
Code	109129L5
Range	This unit of competency is applicable to managers or technical personnel who are engaged in disease control in the arboriculture and horticulture industry. Practitioners should be capable of mastering the physical and chemical methods for disease control, as well as developing corresponding work plans for disease control after having the health conditions of plants and the environmental factors inspected on-site.
Level	5
Credit	4 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge related to developing work plans for disease control by means of physical and chemical methods</p> <ul style="list-style-type: none"> • Comprehend the types, characteristics, causes and modes of transmission of common plant diseases • Comprehend the characteristics, measures to be taken and impact on the environment of the physical and chemical means of disease control • Comprehend the species, properties and health conditions of the target plants • Comprehend the causes of the plant diseases • Possess knowledge of plant pathology and toxicology • Comprehend the equipment, tools and pesticides related to the integrated approach of disease control operations • Comprehend the government legislation and regulations related to disease control operations <p>2. Develop work plans for disease control by means of physical and chemical methods</p> <ul style="list-style-type: none"> • Conduct site visits to inspect the health conditions of the target plants • Identify the signs and symptoms of the target plants • Collect the environmental information of the sites, such as illumination level, soil properties and soil moisture • Analyse the causes of plant diseases based on the environmental information and the signs of infection of the plants • Choose to use physical or chemical control methods to treat the diseases based on the analysis results • Develop the workflow, guidelines and safety codes for disease control projects • Set the work schedules, work objectives and quality objectives of work processes for the disease control projects • Plan corresponding manpower and resource allocation with regard to the area the disease control operations cover and the number of diseased plants • Develop monitoring and assessment mechanisms for the projects to ensure the work quality <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Follow the reasonable pesticide application principle to precisely control the amount and concentration of the chemicals used, so as to reduce the negative impact on the plants and the environment

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Assessment Criteria	The integrated outcome requirements of this unit of competency are: <ul style="list-style-type: none">• Able to identify the signs and symptoms of the target plants and integrate information from all aspects to analyse the causes of the plant diseases;• Able to choose suitable disease control methods based on the analysis results and develop corresponding work plans; and• Able to develop monitoring and assessment mechanisms for the projects to ensure that the work progress and quality meet the contract requirements.
Remark	