

**SKILLS FRAMEWORK FOR LANDSCAPE
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

TSC Category	Horticulture					
TSC	Plant Health Management and Disease Control					
TSC Description	Manage plant health through developing and implementing programmes aimed at meeting nutrition requirements, and remediating pests, diseases and invasive species					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	LNS-GNM-1014-1.1	LNS-GNM-2014-1.1	LNS-GNM-3014-1.1	LNS-GNM-4014-1.1	LNS-GNM-5014-1.1	
	Perform routine plant health monitoring and remediation tasks	Identify plant health requirements and concerns and execute steps to remediate them	Supervise the execution of plant health management plans on site	Lead the implementation of programmes to manage plant health	Develop integrated programmes for managing plant health for a site or organisation	
Knowledge	<ul style="list-style-type: none"> • Symptoms of pest infestations and diseases in plants • Visual identification of common pests • Common diseases affecting plant health • Invasive and noxious plant species and their characteristics • Factors which influence the incidence and spread of pests • Tools used in removal of infestation • Housekeeping and hygienic practices associated with plant health management • Personal Protective Equipment (PPE) required for plant health management activities • Relevant workplace safety and health (WSH) practices and guidelines 	<ul style="list-style-type: none"> • Visual identification of pest infestations or diseases directly or symptomatically • Characteristics of common pests • Invasive and noxious plant species and their characteristics • Nutrition deficiencies in plants and their remediation • Space requirements of plants for optimum health and growth • Impact of pests on plant health and growth • Regulatory and legislative compliance requirements for pest and disease control • Tools and equipment used in removal of infestation • Application of chemicals to treat plants for pests, diseases and invasive species • Types of fertilisers and other chemical and biological substances used to provide plant nutrition • Personal Protective Equipment (PPE) 	<ul style="list-style-type: none"> • Visual and non-visual identification of pests, infestation or disease directly or symptomatically • Characteristics of common pests affecting specific species, occurrence patterns and lifecycle • Effect of pests, diseases and invasive species on plant health • Space requirements of plants for optimum health and growth • Biological and chemical means to meet plant nutritional requirements • Application and calibration of tools and equipment for plant health care • Types of chemicals and biological agents and their application in controlling plant pests, diseases and invasive species • Factors affecting performance of chemical and biological agents in dealing with pests, diseases or invasive species 	<ul style="list-style-type: none"> • Strategies for pests and disease management and control of invasive species • How pests and diseases spread and their impact on plant health, lifespan and aesthetics • Plant nutrition management strategies • Quarantine policy and procedures for plants • Application and calibration of tools and equipment for plant health care • Elements of an integrated plant health management programme • Factors affecting performance of chemical and biological agents in dealing with pests, diseases or invasive species • Compliance requirements for managing pests, diseases and invasive species • Relevant workplace safety and health (WSH) practices and guidelines 	<ul style="list-style-type: none"> • Best practices in plant health and nutrition management • Considerations involved in adopting an integrated approach to plant health management • Current and upcoming chemical and non-chemical techniques to manage plant nutrition, pests, diseases and invasive species • Procedures involved in plant health management • Project management considerations in a horticultural context • Integrated approaches for managing plant and landscape health • Site constraints and challenges in programme implementation • Risk management considerations in a horticultural project context • Relevant workplace safety and health (WSH) practices and guidelines 	

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		<ul style="list-style-type: none"> required for plant health management activities Relevant workplace safety and health (WSH) practices and guidelines 	<ul style="list-style-type: none"> Personal Protective Equipment (PPE) required for plant health management activities Relevant workplace safety and health (WSH) practices and guidelines 			
Abilities	<ul style="list-style-type: none"> Recognise the presence of pests on plants from typical signs and symptoms Recognise symptoms of diseases affecting plants Recognise invasive species growing amongst plants Report instances of disease and infestation in a responsive manner Assist in the application of appropriate treatments as instructed for remediation of infestations or diseases Weed for manual removal of invasive species Perform housekeeping and waste management to maintain appropriate hygiene standards Adhere to WSH practices in performing plant health management tasks 	<ul style="list-style-type: none"> Recognise pests or disease infestation and the extent of infestation in plants directly or through symptoms Assess extent of spread of invasive species amongst plants to support the determination of remediation measures Recognise nutrition deficiencies in plants symptomatically Report unrecognised or uncommon pests or diseases to supervisors Perform pruning, cutting or other techniques to isolate or remove infested portions to prevent the spread of pests and diseases Use biological agents as instructed to treat plants for pests and diseases Apply chemicals as instructed to treat plants for pests and diseases, or to remove invasive species over an extensive area Avoid off-target damage in the application of chemicals Adhere to WSH practices in performing plant health management tasks 	<ul style="list-style-type: none"> Observe plant for pests, diseases and nutritional deficiencies Confirm the presence and extent of pests or diseases in consultation with internal or external experts Plan the management of plant health in consultation with the management Determine the appropriate approach to restore plant health based on assessment of situations Determine biological or chemical means and proportions to be used to meet plant nutritional requirements or treat pests, diseases or invasive species Supervise the treatment of plants and associated housekeeping and hygiene maintenance procedures Report status of control measures and plant health periodically to the management Implement WSH practices in plant health management and disease control 	<ul style="list-style-type: none"> Confirm the presence and extent of pests, diseases or invasive species through review of site reports and site inspection Assess the urgency of the plant health situations based on spread of infestation or invasive species and damage caused to plants Develop plans to manage plant health through providing adequate nutrition and managing pests, diseases and invasive species Develop contingency measures to be deployed in the event of failure of routine methods to control infestation or invasive species Determine the adoption of suitable manual, biological or chemical measures to remediate pests, diseases or invasive species based on horticultural principles Determine ways to minimise the environmental impact of control measures to remediate pests, diseases or invasive species Review plant health and the status of measures 	<ul style="list-style-type: none"> Evaluate the plant health management requirements in terms of elements and processes for a site or organisation, by reviewing historical requirements and conducting site assessments Determine sustainable cultural practices to manage and maintain the health of plants according to enterprise requirements and quality standards Establish plans, processes, procedures and guidelines for managing plant nutrition, treating pests and diseases and controlling invasive species Develop budgets, supplier selection criteria, broad plans and schedules to guide the planning of the plant health management programme Establish guidelines to determine approaches to managing pests, diseases, nutritional requirements and invasive species Develop a system to collect and analyse data regularly so as to provide accurate measures of performance 	

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				<p>deployed to control infestation or invasive species on a periodic basis</p> <ul style="list-style-type: none"> • Drive adherence to WSH practices in plant health management and disease control 	<ul style="list-style-type: none"> • Recommend remedial action to address contingency situations • Review the effectiveness of plant health management programmes to implement improvements and enhancements 	
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