RHS Qualifications
Examiner Comments

Examination:	RHS Level 2 Certificate in the Principles of Plant Growth and Development
Unit:	Unit 1
Examination date:	13th October 2025

General Introductory Comments

Examiners' comments are produced by RHS Qualifications following each examination series. They are intended to help students to prepare for RHS examinations by having a better understanding of the requirements of the paper. These comments are also intended to help tutors to understand the challenges that candidates may have in developing their responses to the questions.

There have now been multiple papers for the Level 2 examinations and all stakeholders are now familiar with the format, structure and demand of the papers.

The RHS Level 2 examination papers are designed to assess the contents of the Qualification Specification according to Ofqual's level descriptors.

At Level 2 these state that candidates should:

- possess a knowledge and understanding of facts, procedures and ideas within the field of horticulture
- be able to complete well defined tasks and address straightforward problems
- be aware of a range of information that is relevant to horticulture and demonstrate an ability to interpret and use relevant information and ideas to inform actions
- be able to apply knowledge, both to unfamiliar situations and by exploring links within and across Topics and Elements.

Overview of Examination

Levels of demand

Questions were set at three levels of demand within this paper.

Questions that require a recall of basic factual knowledge are classified as being low demand.

Questions that require the recall of more technical concepts or the application of knowledge are classified as medium demand.

Questions that require the recall of advanced technical concepts; and which require the application of knowledge, both to unfamiliar situations and by exploring links within and across Topics and Elements are classified as high demand.

General comments

Performance in the examination varied according to both candidate preparation and examination technique.

Candidates who were well prepared and who applied effective examination technique by tailoring their responses to the specific requirements of the question were able to achieve higher marks. These candidates demonstrated secure horticultural knowledge and were able to state relevant facts and principles, apply these through appropriate examples, and link key factors and influences to show integrated understanding.

Some candidates demonstrated strong horticultural knowledge and were able to state facts and principles, provide examples, and show understanding of key influences. However, these candidates did not sufficiently link their knowledge to the requirements of the question. As a result, responses often described what candidates knew about the topic, rather than addressing the question directly, which limited the marks that could be awarded.

Other candidates demonstrated gaps in knowledge, either by omitting parts of the question or by providing responses that were brief and undeveloped. Responses that achieved lower marks often lacked the technical depth required for this examination. These responses typically named or described a horticultural concept, but did not demonstrate the knowledge required by a horticultural practitioner. The responses were often vague, lacked detail or evidence of understanding.

In contrast, responses demonstrating advanced technical knowledge explained underlying processes and principles, used accurate subject-specific language, and applied this knowledge directly to the question. Stronger answers showed clear links between facts, examples, and outcomes, demonstrating understanding rather than simple recall.

Candidates and centres are reminded that a key factor in examination success is a clear understanding of the command words. Candidates and centres are strongly advised to fully familiarise themselves with these terms, as they indicate the type and depth of response required.

For example:

- *State*: provide a brief descriptive point.
- *Explain*: give a clear, short, reasoned statement, often outlining a process or factor.
- *Justify*: support an answer with evidence.

The full table of command words for RHS Level 2 qualifications is provided below.

Command word	Definition
Annotate	Learners should be able to apply labels and supporting information on diagrams
Assess	Learners are required to give a statement relating to the overall quality of the issue being considered. This could include an argument about an issue (for and against). The statement should provide evidence, with appropriate use of examples, and express an opinion about the merits of each side considered
Calculate	Learners should be able to carry out basic calculations, or estimate quantities of materials
Choose	Learners should be able to select from a range of alternatives
Compare	Provide a response that identifies similarities between things
Compare and contrast	Provide a response that both identifies similarities and identifies and evaluates differences between things
Complete	Learners should be able to provide short responses, or complete statements and tables
Deduce	Come to a decision based on information provided in the question
Define	Learners should be able to state formal definitions
Describe	Learners should be able to recall facts or applied processes in an accurate way
Discuss	Identify key points, explore all aspects, provide a conclusion
Evaluate	Learners should be able to use information supplied, as well as their own knowledge and understanding, to consider evidence for and against when making basic decisions
Estimate	Roughly calculate or judge the value, number, quantity, or extent of
Explain	Learners should be able to make clear, short, reasoned statement to explain a process or similar factor
Explain how and why	Learners should be able to make clear, short, reasoned statement to explain a process or similar factor The 'how' asks about the procedure or process The 'why' asks about the purpose of something
Give (a reason)	Learners should be able to clearly state reasons (facts) as directed
Identify	Name or characterise, for example the identification of type of plant tissue, or floral part of a plant

Command word	Definition
Justify	Learners should be able to provide evidence to support an answer
Label	Apply information to diagrams
List	Learners provide single word, or short phrase answers
Name	Learners should be able to provide a single word or short phrase answer
Outline	Learners should be able to provide short descriptions, for example the stages that make up a task
Predict	State what you think will happen, based on a given scenario and your own knowledge
Show that	Prove the statement in the question is correct
State	Learners should be able to provide brief descriptive points
State and explain	Make a point, and then explain or justify key aspects
Suggest	Learners should be able to apply their knowledge and understanding to make recommendations for actions
Summarise	Learners should be able to provide a brief account of the main points with regards to a topic, focussing their response on the most essential ideas.
Use	Learners should be able to use information provided within the question, sometimes in conjunction with their own knowledge, to carry out a task
Write	Learners should be able to provide a short answer as directed

Centres have requested guidance with regards to the following terminology used within questions, and so clarification is provided below:

Term	Explanation
Horticultural setting	Candidates may be required to state a horticultural setting, this would include garden areas, for example a productive garden, or an herbaceous border. This allows the candidate to focus their response to the setting and allows the examiner to calibrate their thinking.
Horticultural situation	Candidates may be required to state a horticultural situation. This allows the candidate to focus their response to the situation and allows the examiner to calibrate their thinking. A horticultural situation could be, for example, the propagation of plants for a productive garden or the application of design principles when combining plants to create an herbaceous border.
Growing system	Candidates may be required to state different growing systems to add context to their responses. Growing systems can be traditional, raised beds, container growing, organic, biodynamic as appropriate.

*This example relates to edible landscapes.

Qualification Specification and Guidance Document

The ***Qualification Specification*** sets out the curriculum content on which candidates will be examined.

To support delivery, the 2025 ***Guidance Document*** (Version 5 of which is available on QuartzWeb) provides centres with additional clarification on how to interpret the Assessment Outcomes at the breadth and depth appropriate for a Level 2 qualification.

It is important to note that the Guidance Document is ***not*** a comprehensive teaching manual. Instead, it highlights examples of key areas within each Assessment Outcome.

For example, if an Assessment Outcome in the Specification lists five areas, the Guidance Document may only expand on one area as an illustration. Centres and candidates are then expected to apply the same level of depth and breadth to the remaining areas.

Section A

Questions 1 – 20

General comments on Section A

Multiple Choice Questions (MCQs) are designed to assess candidate's knowledge and understanding of the concepts covered in the 4 Topics and the 4 Qualification-wide outcomes that make up this unit.

Candidate performance varies across the three sections of the examination: with many candidates performing more strongly in Section A, than Section B and C. In this paper Section A acted as an effective discriminator, with candidates scoring a range of marks.

Candidates and centres are reminded of good examination technique with regards to MCQs Candidates should:

- Carefully read the question
- Underline any key or important words in the stem of the question
- Score through inappropriate answers
- Select the correct answer to be recorded on the response grid.

Section B

Each question is considered separately.

Question 1

This question assessed candidates' knowledge and understanding of **photosynthesis**, with specific reference to the **Law of Limiting Factors**.

Candidates were first required to **define the term 'Law of Limiting Factors'**.

Stronger responses:

- correctly defined the Law of Limiting Factors as the principle that the rate of a physiological process in a plant, such as photosynthesis, is limited by the factor that is in **shortest supply**, even if all other factors are at optimal levels.

Weaker responses:

- incorrectly stated that the Law of Limiting Factors sets a limit on the size a plant can grow in a garden setting
- described a range of environmental factors, such as wind, temperature or light, without explaining how the *least available factor* limits the rate of photosynthesis.

Candidates were then required to **explain two distinct ways** in which the Law of Limiting Factors can affect the rate of photosynthesis.

Stronger responses correctly explained that:

- low temperature will limit the rate of photosynthesis, even when light, carbon dioxide and water are sufficient
- low light intensity will limit the rate of photosynthesis, even when other factors are optimal
- low carbon dioxide concentration will limit the rate of photosynthesis, even when light and temperature are favourable
- lack of available water will limit the rate of photosynthesis, even when other conditions are suitable.

Weaker responses were often vague, undeveloped or inaccurate, for example:

- listing environmental factors that affect plant growth without explaining how one factor limits the process
- stating that low light affects photosynthesis without explaining the limiting effect
- applying unrelated principles such as *right plant, right place*
- stating that lack of water causes plants to die, rather than explaining how it limits the rate of photosynthesis.

Finally, candidates were required to **explain how knowledge of the Law of Limiting Factors can help horticulturists manage plants more sustainably**.

Stronger responses:

- explained that understanding limiting factors helps horticulturists avoid wasting resources, for example by not increasing heating in a greenhouse when water availability is the limiting factor.

Weaker responses:

- discussed general plant care plans or moving plants into greenhouses without reference to limiting factors
- again, referred to *right plant, right place* without linking this to the Law of Limiting Factors.

Closing comments

Overall, candidate performance showed clear differentiation between responses that demonstrated **secure understanding** of the Law of Limiting Factors and those that relied on general or unrelated statements.

Weaker responses tended to describe environmental conditions or plant care in broad terms, without explaining how the **factor in least supply limits the rate of photosynthesis**. These responses often lacked technical knowledge relating to plant science, and did not apply the principle correctly.

Future candidates would benefit from ensuring they can **define key scientific terms from the qualification specification accurately,** and apply them directly to the process named in the question. At Level 2, candidates are expected to explain ideas clearly and use appropriate examples to demonstrate understanding.

Responses that focus on the specific principle being tested, that show a solid technical horticultural knowledge will achieve higher marks.

Question 2

This question assessed candidates' knowledge and understanding of plant lifecycles, with specific reference to ephemeral plants.

The first part of the question required candidates to define the term 'ephemeral plants'.

Stronger responses:

- correctly defined ephemeral plants as species that complete multiple life cycles within a single growing season
- correctly described ephemeral plants as germinating, flowering, setting seed and dying several times within a year.

Weaker responses:

- incorrectly defined weeds (plants growing in the wrong place) rather than ephemeral plants
- described plants with two flowering periods in a year, rather than those with repeated short life cycles.

Candidates were then required to name two distinct (unrelated) ephemeral plants.

Stronger responses correctly named ephemeral plants such as:

- *Capsella bursa-pastoris*
- *Cardamine hirsuta*
- *Stellaria media*.

Weaker responses incorrectly named non-ephemeral plants, for example:

- *Taraxacum officinale*
- *Rosa* spp.
- *Geum* 'Totally Tangerine'.

Candidates were then required to explain one advantage that ephemeral plants provide to wildlife within a garden.

Stronger responses:

- explained that ephemeral plants provide early-season nectar and pollen, supporting insects before many other garden plants come into flower.

Weaker responses:

- described general benefits that apply to most garden plants, rather than advantages specific to ephemeral plants
- discussed disadvantages of ephemeral plants, such as short life cycles, instead of answering the question set.

Finally, candidates were required to explain one advantage that ephemeral plants provide to soil.

Stronger responses correctly explained that:

- ephemeral plants provide short-term ground cover that helps reduce soil erosion
- ephemeral plants reduce nutrient leaching by protecting the soil surface during vulnerable periods.

Weaker responses:

- made vague statements such as “improving soil structure” without explanation or comparison
- discussed the effects of deep tap roots in *Taraxacum officinale*, which is not an ephemeral plant.

Closing comments

Overall, candidate performance highlighted a clear distinction between responses that demonstrated secure understanding of ephemeral plant lifecycles and those that relied on general or incorrect plant knowledge.

Weaker responses often showed confusion between ephemeral plants and other plant types, or relied on broad statements that were not specific to ephemeral plants. In several cases, marks were lost through naming incorrect plants or by failing to explain advantages that were related to ephemeral plants.

Future candidates would benefit from ensuring they can accurately define key terms, correctly identify relevant plant examples, and explain advantages that are directly linked to the group of plants named in the question. At Level 2, clear definitions supported by appropriate examples and technically correct explanations are required to demonstrate understanding and achieve higher marks.

Question 3

This question assessed candidates' knowledge and understanding of **plant health**, with particular reference to the **prevention and spread of plant pests and fungal pathogens**.

The first part of the question required candidates to explain **one reason** why fungal diseases spread more easily when plants are overcrowded.

Stronger responses correctly explained that:

- overcrowding increases humidity around plants, creating conditions that favour fungal disease development, for example *Botrytis*
- reduced air movement caused by overcrowded foliage increases moisture levels on the leaf, along with relative humidity, increasing the risk of fungal infection
- overcrowding can increase competition for water, leading to plant stress and increased susceptibility to fungal diseases, for example powdery mildew.

Weaker responses were often vague, for example:

- stating that plants being closer together causes disease to spread, without further explanation or development
- incorrectly suggesting that overcrowding reduces oxygen levels and directly encourages fungi to thrive.

The second part of the question required candidates to explain **one action** that can reduce the spread of fungal diseases in plantings. To assess depth of knowledge, and recognising that plants growing in border soil are not generally repositioned, candidates were instructed **not** to refer to increasing plant spacing.

Stronger responses correctly stated that:

- effective management of soil moisture can reduce water stress and disease susceptibility
- the use of disease-resistant cultivars can reduce or prevent specific fungal infections
- avoiding irrigation water being applied to foliage or flowers can reduce moisture on the upper surface of the leaf, and so limit disease spread.

Weaker responses were vague or incorrect:

- suggested increasing plant spacing, which was excluded by the question
- applied unrelated principles, such as moving plants to soil with a more suitable pH under the concept of *right plant, right place*.

Candidates were then required to integrate their knowledge of **sustainability and climate change** to state **three ways** in which climate change may increase the spread of fungal diseases.

Stronger responses correctly stated that:

- increased drought conditions can favour some fungal diseases, for example powdery mildew
- increased rainfall can result in foliage remaining wet for longer periods, increasing the likelihood of fungal infection

- increased winter rainfall can lead to higher soil moisture levels, favouring the spread of water-borne diseases such as *Phytophthora*.

Weaker responses included incorrect or undeveloped statements, for example:

- suggesting that warmer weather alone causes dense leaf growth at the base of plants, without linking this clearly to fungal disease development.

Closing comments

Overall, candidate performance showed a clear distinction between responses that demonstrated secure understanding of fungal disease spread and those that relied on general or inaccurate statements.

Weaker responses often lacked technical detail or failed to follow the instructions given in the question, resulting in marks being lost through omission or misinterpretation. In particular, some candidates did not recognise exclusions within the question or applied unrelated concepts which cannot be awarded marks.

Future candidates would benefit from ensuring they read questions carefully, understand key plant health principles, and apply them accurately to the scenario provided. At Level 2, candidates are expected to explain causes and actions clearly, using appropriate examples and terminology. Responses that focus directly on the vectors of disease spread and control, rather than general plant care advice, will achieve higher marks.

Question 4

This question assessed candidates' knowledge and understanding of the impact of **abiotic factors** on plant health.

The first part of the question required candidates to **describe one way** in which **direct sunlight** can damage plants.

Stronger responses stated that:

- intense sunlight can scorch plant tissues, resulting in dead (necrotic) areas on leaf surfaces or leaf margins
- intense sunlight can increase evaporation and transpiration, leading to drying or damage of leaf tissue.

Weaker responses were vague or undeveloped, for example:

- stating simply that intense sunlight causes leaf damage, without explanation
- applying the principle of *right plant, right place* without describing the damaging effect of sunlight.

Candidates were then required to **apply their knowledge** by naming **one plant** that can be damaged by direct sunlight.

Candidate responses were assessed using RHS reference sources. It should be noted that when a question requires a plant name, candidates are expected to name a **specific plant**, using **scientific naming conventions**. It is not required that online candidates use italics, or that handwritten responses underline the scientific plant name.

- Candidates who correctly state a full genus and species are awarded **one mark (**½ for genus, and ½ for species)
- where a common name is used, **½ mark** is awarded
- if only a genus is named, the characteristic required by the question has to apply to **all species within that genus**.

Some candidates use general terms for groups of plants, for example fern. As *fern* is neither a scientific name nor a specific common name, no marks can be awarded. Where candidates develop their response by naming a specific fern, for example, **maidenhair fern**, **½ mark** is awarded as this is now a common name of a plant.

Candidates and centres should also note that common names are acceptable for edible crops, for example apple would receive a full mark. If a question required, for example the naming of a resistant cultivar, then Carrot 'Flyaway' would be sufficient to gain full marks.

Candidates and centres should also note that scientific names are not required for the identification of pests or diseases.

Candidates were then required to **name one method** of reducing the intensity of sunlight in a horticultural setting.

The majority of candidates suggested appropriate methods, including:

- the use of shading materials
- the use of netting to create shade
- planting trees to provide shade
- incorporating landscape structures, such as pergolas.

Candidates were then required to describe one way in which wind can negatively affect the process of photosynthesis.

Stronger responses explained that:

- high winds can cause stomatal closure, reducing carbon dioxide uptake and photosynthesis
- wind can remove leaves from a plant, reducing the available photosynthetic surface area
- wind can reduce soil moisture, limiting water availability for photosynthesis.

Weaker responses showed partial development, for example:

- stating that wind changes humidity around the leaf without linking this clearly to photosynthesis
- discussing loss of pollen or fertilisation, which was not relevant to photosynthesis.

Finally, candidates were required to state one method of protecting plants from wind damage.

Most candidates identified suitable methods, including:

- planting windbreaks or shelter belts
- establishing hedges
- using netting or screening
- constructing trellis or similar structures
- using tree stakes and plant supports.

Closing comments

Overall, candidate performance demonstrated a range of understanding of how abiotic factors affect plant health. Stronger responses clearly explained cause-and-effect relationships, used appropriate terminology, and applied knowledge directly to the processes named in the question.

Weaker responses often lost marks through lack of development, by naming effects without explanation, or by applying unrelated principles. In addition, marks were frequently lost where candidates did not follow instructions regarding plant naming, highlighting the importance of using specific and accurate scientific plant names.

Future candidates would benefit from revising key abiotic factors and their direct effects on plant processes, practising accurate plant identification, and ensuring responses explain *how* and *why* damage occurs. At Level 2, clear explanation supported by relevant examples and correct terminology is required to demonstrate understanding and achieve higher marks.

Question 5

This question assessed candidates' knowledge and understanding of **growing media**, with specific reference to **seed composts**.

Candidates were required to **state two characteristics** of a seed compost.

Stronger responses correctly identified characteristics such as:

- low nutrient content
- fine structure
- higher air-filled porosity (AFP).

Weaker responses included incorrect or inappropriate characteristics, for example:

- describing seed compost as "light" without further explanation
- stating that seed compost is ericaceous
- suggesting that seed compost should contain a balanced range of nutrients and trace elements
- referring to soil-based characteristics, such as fine soil particles.

Important guidance for candidates and centres

Candidates have frequently lost marks in questions relating to growing media by incorrectly linking responses to **soil texture and structure**, rather than composts. Candidates preparing for the Level 2 examination are strongly encouraged to develop a clear understanding of the **difference between soil** and **growing media**.

Candidates were then required to **explain how one characteristic** of seed compost supports plant growth.

Stronger responses correctly explained that:

- developing root systems require oxygen, and therefore a high air-filled porosity is needed to meet this requirement
- a fine structure is important when filling modules to avoid large air pockets, which could lead to air pruning of young roots.

Weaker responses included vague or incorrect explanations, for example:

- referring generally to good soil structure, nutrient availability and water retention without linking this to seed compost
- stating that as seed composts are ericaceous, this allows seeds to germinate, which was incorrect.

Candidates were then required to **apply their knowledge further** by describing **two differences** between potting composts and seed composts.

Stronger responses accurately identified differences such as:

- potting composts having a coarser structure than seed composts
- potting composts containing higher nutrient levels to support more mature plant growth

- potting composts often contain additives to increase water-holding capacity, which seed composts typically do not have.

Weaker responses included vague or inaccurate statements, for example:

- suggesting differences in growth hormones
- stating generally that the composts contain different nutrients without further explanation
- incorrectly stating that potting composts are easily waterlogged.

Closing comments

Overall, candidate performance demonstrated a clear difference between responses that showed secure understanding of growing media and those that confused composts with soil.

Many candidates lost marks through technical inaccuracy, particularly by applying soil-based concepts to composts or by using imprecise terminology. At Level 2, candidates are expected to identify key characteristics accurately and explain their function in a clear and straightforward way.

Future candidates would benefit from revising the properties and purposes of different growing media, using correct terminology, and ensuring that explanations focus specifically on composts rather than soil. Responses that clearly link the characteristics of different composts to plant growth requirements, and which accurately distinguish between seed and potting composts will achieve higher marks.

Question 6

Candidates were required to **explain two reasons** why purchasing **bare root plants** is more sustainable than purchasing **rootballed plants**.

Stronger responses stated that:

- bare root plants are lighter in weight, reducing carbon emissions associated with transport
- bare root plants reduce the risk of spreading soil-borne pests and diseases, as soil is removed, lowering the likelihood of plant failure and the environmental impact of producing and transporting replacement plants
- bare root plants are more sustainable as soil is not removed from the field during lifting.

Weaker responses included inaccurate or irrelevant statements, for example:

- suggesting that bare root plants require less water than container-grown plants
- stating that bare root plants do not use pots or plastic, (which does not explain why they are more sustainable than rootballed plants)
- suggesting that rootballed plants are more likely to attract pests due to reduced watering before transport; while reduced watering may occur, the explanation/development was incorrect, reducing mark allocation.

Candidates were then required to **explain one limitation** of purchasing bare root plants.

Stronger responses stated that:

- bare root plants may require heeling in, if planting is delayed due to site or weather conditions
- bare root plants have a shorter storage period compared to rootballed plants
- bare root plants are only available during the dormant season.

Weaker responses included vague or incorrect explanations, for example:

- stating that bare root plants are usually large and therefore less stable when planted
- suggesting that bare root plants take longer to show results, without explanation or comparison.

Closing comments

Overall, candidate performance showed a clear distinction between responses that demonstrated **secure understanding of plant specification and sustainability** and those that relied on general or unrelated statements.

Weaker responses often lost marks through **lack of technical precision**, particularly by confusing comparisons between bare root and container-grown plants rather than bare root and rootballed plants, as required by the question.

Future candidates would benefit from revising key concepts such as bare root, rootballed, container grown and containerised plant production. At Level 2, candidates are expected to explain and apply sustainability benefits clearly and accurately, using appropriate terminology and making direct comparisons that address

the question set. Responses that remain focused, technically accurate, and well explained will achieve higher marks.

Question 7

This question assessed candidates' knowledge and understanding of **plant nutrition**, with particular reference to nutrient availability in relation to **soil pH**.

Candidates were first required to **name one nutrient** that becomes limited at a **high pH**.
Stronger responses correctly identified nutrients that become less available at high pH, including:

- Iron
- Manganese
- Copper
- Zinc.

Weaker responses named nutrients that do not become limited at high pH, indicating gaps in understanding of nutrient availability.

Candidates were then required to **state one function** of the nutrient named in the first part of the question.

Stronger responses accurately stated a distinct function of the correctly named nutrient, for example explaining the role of manganese in contributing to chlorophyll formation in plants.

Weaker responses either related to an incorrectly named nutrient or were vague and undeveloped, for example stating that iron "helps plants to grow" without further explanation.

Candidates were then required to **describe one deficiency symptom** associated with the nutrient named.

Stronger responses provided accurate and specific deficiency symptoms, for example chlorosis affecting particular leaves.

Weaker responses gave generalised or inaccurate descriptions, such as stunted growth or leaves turning yellow, without linking these clearly to the nutrient named.

Finally, candidates were required to demonstrate applied knowledge of **Best Practice** by **naming two plants** that thrive in **low pH conditions**.

Stronger responses correctly identified suitable plants for soils with a low pH.

Weaker responses named incorrect plants or candidates did not attempt this part of the question.

Closing comments

Overall, candidate performance highlighted the importance of **accuracy and consistency** across linked parts of a question.

Weaker responses lacked technical detail, using general statements rather than specific functions or deficiency symptoms. At Level 2, candidates are expected to demonstrate **clear understanding** by naming

correct nutrients, explaining their role within the plant, and describing recognisable deficiency symptoms using appropriate terminology.

Future candidates would benefit from revising nutrient availability in relation to soil pH and developing a secure knowledge of the impact of pH on nutrient availability, specific nutrient functions and deficiency symptoms.

Responses that are specific, technically accurate and address all parts of the question will achieve higher marks.

Section C

Candidate responses in Section C are graded against the **assessment ladder**, shown on the following page. Centres and candidates are advised to review this carefully, as it illustrates how assessment decisions are made when grading long-form responses.

To further support understanding of the assessment process, this report includes examples of candidate responses accompanied by examiner commentary explaining how decisions were reached.

Performance in Section C ranged from stronger candidates who:

- carefully read and addressed the key requirements of the question
- produced concise, logical, and well-structured responses
- demonstrated advanced and current understanding of the subject matter
- integrated knowledge from different topic areas to provide holistic answers
- fully met the requirements of the question without including irrelevant material or omitting essential points.

By contrast, weaker responses often:

- provided very short answers lacking the required depth and breadth
- focused narrowly on isolated words from the question rather than answering it as a whole
- produced basic or vague responses with limited technical content.

In addition to the assessment ladder, responses are reviewed against the following criteria:

Indicative content

- Strength of response
- Integration
- Horticultural knowledge

Strength of response

Stronger responses:

- developed a logical argument directly addressing the question
- drew upon reliable information sources
- remained consistently relevant
- expressed clarity of thought
- demonstrated sound knowledge of horticultural practices.

Integration

Candidate responses should integrate knowledge from across the syllabus, showing connections between topics to strengthen analysis and evaluation.

Assessment ladder (for information)

Band	Mark range	Summary	Description
4	12 - 15	Fully developed (Total)	**A highly detailed, comprehensive, fully relevant response, addressing all aspects of the question** ☐ No irrelevant or incorrect material or observations at the top end of the mark range: otherwise only very minor errors/omissions (which do not detract from an otherwise strong response) ☐ Full integration/clear links demonstrated with other appropriate topics as required: a holistic approach ☐ Advanced current professional horticultural knowledge/principles demonstrated (and evidence of advanced material beyond the specification at the top end of mark range) ☐ Consistent use of correct and appropriate technical language.
3	9 -11	Mainly developed (Solid)	**A reasonably detailed and fairly comprehensive response, with mostly relevant observations, addressing most of the key elements of the question** ☐ Some minor evidence of irrelevant or incorrect material or observations (in what is otherwise a good response), with occasional lack of detail/omissions at times ☐ Secure evidence of some appropriate integration with other topics but some linked topic areas are occasionally overlooked or incorrect associations are made: a partially holistic approach ☐ Current professional horticultural knowledge/principles demonstrated most of the time, with occasional errors, but largely appropriate explanations and application ☐ Correct and appropriate technical language demonstrated most of the time, with some minor errors.
2	6 - 8	Rudimentary (Basic)	**A largely basic response with some relevant observations, addressing some key elements of the question** ☐ Some significant evidence of irrelevant or incorrect material and frequent lack of detail, with some key areas overlooked ☐ Occasional evidence of correct integration with other topics, but many areas are overlooked and incorrect associations made: little evidence of a holistic approach ☐ Current professional horticultural knowledge/principles demonstrated some of the time, but with frequent errors, and only basic explanations or application ☐ Correct and appropriate technical language only partially demonstrated but limited. Some key errors.

1	0 - 5	Undeveloped (Unsatisfactory)	**A largely poor response with few relevant observations, addressing few of the key elements of the question** ☐ Material is largely irrelevant or incorrect and lacking in any detail, with many key areas overlooked ☐ No, or very little evidence of correct integration with other topics, with many areas overlooked and incorrect associations made: no evidence of a holistic approach ☐ No or little evidence of current professional horticultural knowledge/principles demonstrated, with poor or incorrect explanations or application ☐ Little (if any) technical language demonstrated. Often incorrect. Key errors.

Question 1

This question assessed candidates' knowledge and understanding of plant nomenclature, and their ability to apply this knowledge to plant selection for garden use.

The question began with a short scenario explaining that plant catalogues often use terms such as *Rosaceae* and *maritima*. Candidates were then required to explain how an understanding of plant nomenclature can support the selection of appropriate plants for a garden.

Stronger candidates demonstrated a clear understanding of how plant nomenclature supports horticultural decision-making. They:

- explained the meaning and horticultural significance of plant names, linking the precise use of botanical nomenclature to the accurate ordering, specification and planting of plants
- explained how knowledge of plant families can be used to assess disease and pest risk, recognising that some problems are family-specific
- discussed the etymology of plant names, explaining that botanical names often act as a concise record of a plant's habitat, growth habit or biology, which can inform plant selection.

Well-developed responses included accurate examples, such as:

- *Primula* – derived from the Latin *primus*, meaning *first*, indicating plants that flower early in the season. This knowledge can be used when planning flowering succession within a garden.
- *Fagus sylvatica* – where *silva* means *woodland*, literally meaning "the beech of the woods", helping to identify the species as suitable for woodland or forest garden settings.
- *Pinus sylvestris* – where *sylvestris* indicates a woodland or woodland-edge habitat. Similar usage was correctly noted in *Malva sylvestris* (common mallow), which often occurs on woodland margins.
- *Armeria maritima* (sea thrift) – where *maritima* indicates a coastal habitat, suggesting tolerance of salt spray, free-draining soils and wind exposure, making it suitable for maritime gardens.

Weaker candidates showed limited understanding of the role of plant nomenclature in plant selection. These candidates:

- Were unable to make clear links between plant names and plant selection
- Made general or observational comments about plants that were not directly related to nomenclature
- Provided inaccurate or confused horticultural explanations, for example:
  - Suggesting that *Lavandula angustifolia* requires "low maintenance soils"
- Incorrectly stating that *Rhododendron* species require "fixed nitrogen", rather than recognising their preference for acidic, organic soils.

Discussed unrelated plant selection strategies without reference to botanical naming conventions.

Closing Comments

Overall, this question effectively differentiated between candidates who viewed plant nomenclature as a useful horticultural tool and those who regarded it as simply a naming convention.

Stronger candidates demonstrated that an understanding of botanical names supports accurate plant selection, specification and communication, particularly when working from catalogues, plant lists and professional planting plans.

High-quality responses showed that knowledge of plant families, genera and species enables horticulturists to anticipate plant requirements and constraints, such as habitat preferences, tolerance of environmental conditions, and potential susceptibility to pests and diseases.

This reflects Best Practice in horticulture, where informed plant choice reduces the risk of plant failure and supports sustainable garden management.

Weaker responses tended to rely on generalised plant knowledge or anecdotal observations, without demonstrating how nomenclature itself informs decision-making. These answers often failed to recognise that botanical names encode information about a plant's ecology, growth context and biological relationships, limiting their ability to apply this knowledge meaningfully to horticultural practice.

In conclusion, candidates who were able to interpret and apply plant nomenclature demonstrated a more professional, evidence-based approach to horticulture and were rewarded with higher marks.

Question 2

This question assessed candidates' knowledge and understanding of **plant health**, with specific reference to the **sustainable management of pests without the use of chemical pesticides**.

Candidates were required to explain how horticulturists manage pests in a sustainable way, excluding the use of chemical controls.

Stronger responses addressed the question in a logical and well-developed manner and included discussion of:

- abiotic factors that influence plant health, for example wind contributing to the spread of pests, or poor soil conditions reducing plant resilience, alongside appropriate strategies to address these issues
- the use of pest-resistant cultivars, supported by named plant examples
- the key stages of an **Integrated Pest Management (IPM)** approach, excluding chemical control, which was outside the scope of the question
- the role of pests within wider ecosystems, including their importance as a food source for wildlife
- the concept of an **economic threshold**, linking this to sustainable management and nature recovery within garden settings.

Weaker responses:

- discussed the management of plant diseases rather than pests, as required by the question
- focused on the spread of fungal spores or disease-related issues, which were outside the scope of the question
- suggested the use of chemical controls, including organic pesticides such as pyrethrums, without recognising their broad-spectrum impacts on non-target organisms and sustainability goals, or that these responses were outside the scope of the question
- described isolated/limited elements of Integrated Pest Management without demonstrating understanding of the overall approach
- provided generalised or descriptive information with limited technical detail
- were brief, vague or undeveloped.

Closing comments

Overall, candidate performance showed a clear distinction between responses that demonstrated **secure understanding of pest management** and those that lacked focus or technical accuracy.

Many candidates lost marks by failing to read the question carefully, particularly by discussing diseases rather than pests or by including chemical control methods that were explicitly excluded by the question. Other responses lacked depth, describing individual actions without explaining how these contribute to a pest management strategy.

Future candidates are advised to ensure they understand key plant health principles, including the distinction between pests and diseases, and the role of Integrated Pest Management. At Level 2, candidates are expected to explain approaches clearly, use appropriate terminology, and remain focused on the requirements of the question. Responses that demonstrate accurate knowledge, logical structure and clear explanation will achieve higher marks.

Question 3

This question assessed candidates' knowledge and understanding of **Best Practice in relation to plant establishment**.

Candidates were informed that, when establishing new plantings, it is important to follow best practice when irrigating. They were then required to explain the **effects of both correct and incorrect irrigation** practices on newly planted stock.

Stronger responses demonstrated secure technical knowledge of irrigation and plant establishment by:

- clearly identifying the fundamental purpose of irrigation as maintaining adequate soil moisture within the rootzone
- explaining how appropriate irrigation supports successful establishment, particularly through the reduction of transplant shock
- recognising that correct irrigation encourages the development of strong, well-distributed root systems
- linking effective irrigation to the reduction of environmental stress on newly planted stock
- explaining how sufficient soil moisture supports nutrient uptake and overall plant vigour
- demonstrating an understanding of Best Practice through reference to evidence-based approaches, including the use of trials data and the adoption of practices used in leading gardens.

Stronger candidates also showed good understanding of incorrect irrigation practices, including:

- allowing soil to dry out, resulting in insufficient water in the rootzone, leading to root death, scorched foliage, poor growth and potential plant failure
- over-irrigation, which can fill soil macropores with water and reduce oxygen availability to roots
- excessive watering, resulting in root rot, soil structure collapse and the spread of soil-borne fungal diseases such as Phytophthora
- poor application techniques, such as shallow or frequent light watering, which fail to increase moisture levels within the rootzone
- the use of poor-quality or contaminated irrigation water
- reliance on mains water or water sourced unsustainably
- applying irrigation during the heat of the day, where evaporative losses may outweigh the benefits of watering
- irrigating foliage and flowers, particularly in the evening, resulting in leaves remaining cold and wet overnight and increasing disease risk.

Weaker responses were often vague and tended to focus on irrigation methods rather than the effects of correct or incorrect irrigation practices. These responses commonly:

- described different irrigation methods, such as watering cans, hosepipes or micro-irrigation systems, without explaining how these may be used effectively or ineffectively

- discussed water sources, such as water butts, without linking these to plant establishment outcomes
- relied on overly simplistic statements, suggesting that correct irrigation involved "enough water" and incorrect irrigation involved "too little", with little or no further explanation.

Closing comments

Many candidates struggled to move beyond basic descriptive statements and did not sufficiently develop their answers to demonstrate the depth of horticultural understanding required by the Qualification

Specification. Responses frequently lacked explanation of the scientific principles underpinning irrigation practice, particularly in relation to soil–water relationships, root function and plant stress.

Candidates are reminded that questions of this nature require more than the identification of practices or equipment. To access higher marks, candidates must be able to explain how horticultural practices influence plant establishment, apply their formal knowledge of Best Practice and discuss the consequences of poor decision-making.

Question 4

This question assessed candidates' knowledge and understanding of **sustainability in relation to plant nutrition**.

Candidates were required to discuss **the main alternatives to synthetic fertilisers** and explain how each may be used to support sustainable plant management. Candidates were further instructed to consider both the **advantages and disadvantages** associated with each alternative.

Stronger responses provided detailed, technically accurate and well-structured answers by:

- correctly defining the term *synthetic fertiliser*
- identifying a range of suitable alternatives before evaluating the advantages and disadvantages of each

Commonly discussed alternatives included:

- **Compost and organic matter**, with stronger candidates recognising that these are natural and generally sustainable materials which reduce the amount of green waste sent to landfill. They explained that composts provide a slow release of nutrients, but that nutrient range and availability are variable, limiting their suitability in some horticultural contexts, such as container production. Stronger responses also highlighted wider benefits, including improvements to soil structure, increased biological activity and enhanced moisture retention.
- **Green manures**, which were identified as effective in recycling nutrients that may have leached beyond the rooting zone of some crops. Stronger candidates recognised the role of leguminous green manures in increasing soil nitrogen through the formation of root nodules. Additional benefits discussed included protecting soil from erosion, suppressing weeds and supporting biodiversity, particularly pollinators. Limitations were also clearly identified, including the requirement for land to be taken out of production, increased complexity in crop rotations and the relatively low nutrient contribution compared with synthetic base and top dressings.
- **Seaweed products and other natural tonics**, which were correctly described as sources of trace elements, growth stimulants and higher nutrient levels than composts or green manures. Stronger candidates demonstrated comparative understanding by noting that, while seaweed products may provide more nutrition than other organic alternatives, nutrient levels remain lower than those supplied by named synthetic fertilisers. Sustainability considerations were well developed, including responsible sourcing, alongside disadvantages such as plastic packaging and carbon emissions associated with processing and transport.

Weaker responses were often vague, descriptive or insufficiently developed. These responses commonly:

- focused on the general importance of applying fertilisers, rather than addressing alternatives
- discussed materials such as leaf mould or other low-nutrient products without recognising their nutritional limitations
- suggested a complete move away from fertiliser use without justification or development
- made generic statements about following best practice or applying the "correct nutrient" with little explanation
- identified suitable alternatives but discussed advantages only, with no consideration of disadvantages
- overestimated the nutrient content of animal manures, incorrectly suggesting they are comparable to synthetic fertilisers.

Closing comments

Many candidates provided simplistic responses that lacked the technical detail required at this level. There were frequent gaps in knowledge, particularly in relation to nutrient availability and realistic comparisons between synthetic fertilisers and their alternatives. Some candidates assumed that sustainable alternatives inherently provide higher nutrient levels than synthetic products, which limited the accuracy of their responses.

Few candidates considered biosecurity risks associated with imported organic materials, or health and safety implications when evaluating the advantages and disadvantages of different fertiliser alternatives. To achieve higher marks, candidates must demonstrate a balanced and evidence-based understanding, showing both the benefits and limitations of sustainable alternatives, supported by appropriate horticultural knowledge.