PRINCIPAL EXAMINER'S REPORT

BOTSWANA EXAMINATIONS COUNCIL

BSSE FIELD CROP PRODUCTION

2025

Advancing learning, certifying your future

PAPER 1: WRITTEN PAPER

General Comments

The 2025 cohort's performance was comparable to 2024, with neat, logically presented work and few questions were not attempted. Most candidates followed rubrics and showed improved graphing skills, particularly in plotting sorghum yield. However, persistent challenges include misunderstanding command word, such as explain or describe, where brief statements replaced detailed responses, and difficulty with comparison questions. Centres should emphasise structured answers, use of tables for comparisons, and thorough explanation techniques to boost performance.

Comments on Individual Items

1 (a) (i) Candidates performed well, with most correctly identifying price as a key determinant of demand. Other valid factors like income, preferences, and availability of substitutes were also mentioned. Strong recall indicates good grasp of foundational economic concepts.

(ii) Performance was fair. Most candidates correctly identified price as a determinant of supply but struggled to explain the relationship accurately. Common errors included incorrect logic like "higher demand means lower supply." While key factors were named, explanations often lacked precision. Emphasising cause-and-effect reasoning and clarifying misconceptions will help improve responses.

(iii) The question was moderately handled, with most candidates correctly identifying strategies like advertising and price reduction to increase demand. However, explanations were often brief or missing. Encouraging deeper analysis of how these strategies influence consumer behaviour will enhance responses.

(b) (i) Candidates performed well, with most correctly identifying roots as the primary site of water absorption. Responses were accurate and concise, reflecting a solid understanding of plant physiology. A few mentioned stems or leaves, but overall, knowledge of root function was strong.

(ii) Most candidates struggled to describe active transport, often confusing it with osmosis. Many failed to explain how the process handles concentration gradient. It must be noted that osmosis is passive and follows the gradient, while active transport requires energy to move against it. Clearer teaching on mechanism, energy use, and gradient direction is essential.

(iii) Performance was weak. Many candidates stated basic functions (e.g., "absorbs light" or "opens stomata") but failed to link them to plant growth. Few explained that light absorption drives photosynthesis or that stomata enable gas exchange for carbon fixation. Emphasising functional connections to growth processes is crucial.

(c) (i) Most candidates struggled, with only a few correctly identifying cuttings and tillering as methods of asexual propagation. A few listed techniques like grafting or budding while some simply gave plant parts. Confusion between propagation methods and plant structures indicates a need for clearer differentiation in teaching.

(ii) Candidates performed poorly, often mistaking the question as asking for a definition rather than the propagation steps. While many correctly noted that seed use is sexual reproduction, few described key procedures like seedbed preparation, proper sowing depth, spacing, or planting methods. Emphasising procedural knowledge and reading for command words will help improve responses.

(iii) Most candidates missed the focus on initial establishment of seedlings, giving generic care tips instead. Strong responses included using sterilised tools, proper timing (early morning/evening), shade or frost cover, and certified materials. Many overlooked critical setup steps, highlighting the need to tailor answers to the specific stage asked.

2 (a) (i) Most candidates correctly identified the tool in Fig 2.1 as a zig-zag harrow, demonstrating good recall. Responses were accurate and confident, reflecting familiarity with common farm implements. A few minor spelling errors were noted, but overall performance was strong.

(ii) Performance was fair, but many candidates inaccurately described the zig-zag harrow as "breaking the soil," which refers to ploughing. The correct function is breaking soil clods or lumps to prepare a fine seedbed. Clearer emphasis on precise terminology and implement-specific roles is needed.

(iii) Most candidates understood basic maintenance actions but missed key details like frequency or context e.g., “oiling” instead of “oiling after use.” Full credit required specificity: regular cleaning, proper storage, timely part replacement, and following manufacturer guidelines. Emphasising precision and completeness will help improve responses.

(b) (i) Most candidates correctly identified basal dressing as the type of fertilisation applied before planting. Some confused it with top dressing, which is applied after planting. While overall performance was good, reinforcing the timing and purpose of each method will help reduce confusion.

(ii) Performance was fair, but many candidates only listed precautions without explaining them, missing key marks. Full credit required both a valid precaution and a clear explanation e.g., “Wear gloves to avoid skin contact with chemicals.” Teachers should stress the need for complete, well-linked responses.

(iii) Most candidates incorrectly identified nitrogen as the deficient nutrient, despite contextual clues. While some named correct fertilisers like urea or limestone ammonium nitrate, knowledge of other straight nitrogenous fertilisers such as ammonium sulphate or sodium nitrate was limited. Broader teaching on fertiliser types is needed.

(c) (i) Most candidates correctly identified vegetative structures like tillers, stems, tubers, and roots showing a good grasp of asexual propagation methods. Responses were relevant, though some lacked precision in linking structures to specific crops. Overall, understanding is solid but can be deepened.

(ii) Most candidates struggled to differentiate dibbling from drilling, with many leaving the question blank or providing incomplete comparisons. Key distinctions like fixed spacing in dibbling

versus variable in drilling, or tools used were largely missed. Clearer instruction on planting methods is urgently needed.

(iii) Most candidates left this question unanswered, revealing a significant gap in understanding planter calibration. Key steps like adjusting the seed plate, testing over a measured distance, and comparing actual vs. desired seed rates were largely unknown. Centres must prioritise hands-on teaching of calibration procedures.

3 (a) (i) The item was well done with most candidates correctly identifying couch grass as a common weed, showing good recognition of problematic plant species. This reflects solid understanding, though broader knowledge of weed types should still be encouraged.

(ii) Most candidates correctly named weed types as annuals, biennials, or perennials but struggled to link them to life cycle duration. Many missed explaining that annuals complete their cycle in one season, biennials in two, and perennials live for several years. Clearer focus on life cycle definitions is needed.

(iii) Most candidates correctly identified chemical control from the diagram and noted valid drawbacks like environmental pollution and harm to beneficial organisms. Responses were relevant, though some lacked depth in explaining long-term impacts. Overall, understanding is fair but can be strengthened.

(b) (i) Most candidates performed moderately, with common correct answers like damping-off or leaf spot. However, several left the question blank, indicating gaps in disease identification. Reinforcing common plant disease symptoms will help improve performance.

(ii) Most candidates showed little understanding of cultural disease control, with many leaving the question blank. Some recalled methods like crop rotation or burning but failed to explain how they work. Clearer teaching on both the practice and mechanism of each method is urgently needed.

(iii) Many candidates correctly identified maize streak as a viral disease, but few could state effective control measures such as using resistant varieties, early planting, or vector control. This gap suggests a need for deeper focus on disease-specific management strategies.

(c) (i) Most candidates answered well, citing key safety measures like storing pesticides in well-labelled, tightly closed containers and keeping them out of children's reach. A few lost marks by omitting "well-labelled" or "tightly closed." Precision in language remains crucial.

(ii) Most candidates struggled to outline the calibration steps for a knapsack sprayer such as measuring output, checking pressure, or spraying a known area. Many left the question blank, indicating a major knowledge gap. Practical training on sprayer calibration is strongly recommended.

(iii) Most candidates attempted the question but misapplied the law of ratios or skipped key steps in their calculations. Many lost marks for incomplete working or incorrect setup. Emphasising proper problem-solving structure and correct application of ratios is essential.

4 (a) (i) Most candidates struggled with this question, with only a few correctly identifying dry grains as the answer. Many provided irrelevant or incorrect responses, indicating a weak grasp of the topic. Clearer instruction on crop harvesting and post-harvest handling is needed.

(ii) Many candidates recognised that nutrients boost yield but could not explain how missing key links like improved root development, better photosynthesis, or enhanced flowering. Teaching should focus on connecting nutrient functions to plant growth processes for fuller understanding.

(iii) Most candidates applied the correct ratio method but made calculation errors, arriving at 133 instead of 1333.3. This suggests a need to emphasise accuracy in arithmetic and unit conversion. A quick double-check could help avoid such slips.

(b) (i) Most candidates correctly identified winnowing as the process of separating grain from chaff, showing good recall. Responses were accurate and confident indicating solid understanding of basic post-harvest practices.

(ii) Most candidates correctly linked grading to size-based separation for easier pricing and marketing. However, some missed broader benefits like quality control or market standards. Overall, understanding is fair but can be deepened.

(iii) Most candidates correctly identified safety practices like wearing protective gear and avoiding loose clothing. However, some confused the machine's purpose, saying it chops feed instead of threshing grain. Clarifying machine functions will improve accuracy.

(c) (i) Candidates performed well, with most correctly identifying quality, advertising, and price as factors influencing product demand. Responses were relevant and showed good understanding of market dynamics.

(ii) Most candidates left this blank, showing little knowledge of maize processing methods. Few described boiling or roasting, and even fewer included key steps like timing or safety precautions. Clear, step-by-step teaching on food preparation techniques is needed.

(iii) Most candidates performed well, correctly plotting bar charts with proper axes and scaling. Common mistakes included omitting titles or mislabelling, highlighting the need to emphasise complete presentation. A title is essential for clarity.

5 (a) (i) Most candidates struggled with this question, leaving blank spaces, or providing incomplete answers. This indicates a significant knowledge gap. Centres should revisit the topic with clear examples and practice exercises.

(ii) Most candidates performed poorly, confusing spacing factors with planting depth or seed size. Key factors like soil fertility, plant height, moisture, and root system were rarely mentioned. Teaching should focus on how crop and environmental traits influence spacing decisions.

(iii) Most candidates struggled to calculate plant population, with many leaving it blank. Few showed correct unit conversion or applied spacing to area. Step-by-step teaching on area calculations and plant density is urgently needed.

(b) (i) Most candidates correctly identified equipment Y as a hoe, showing good familiarity with basic hand tools. Responses were accurate, reflecting solid foundational knowledge.

(ii) Most candidates missed the focus on comparative uses and instead listed general features. Few used tables to clearly contrast functions. Emphasising comparative analysis and structured presentation will improve responses.

(iii) Most candidates correctly identified pick or pickaxe for tough soil and gave valid reasons like rocky terrain or dry conditions. Some mistakenly mentioned digging fork, which is unsuitable here. Reinforcing tool-soil suitability will help.

(c) (i) Most candidates showed little understanding of silage making, with many leaving the question blank. Key steps like chopping fodder, compaction, sealing with plastic, or using activators were rarely mentioned. Practical demonstrations could improve grasp of the process.

(ii) Candidates struggled to outline hay making with many missing key steps like cutting grass at the right stage (before flowering) or turning it regularly to ensure even drying. Incomplete sequences indicate need for clearer, step-by-step instruction.

(iii) Most candidates gave relevant reasons like lower prices, better quality, or effective advertising, showing good understanding of competitive advantage. A few provided extra points, but clarity and completeness varied.

PAPER 2: PRACTICAL EXAMINATION

General Comments

This practical examination paper was designed to assess Assessment Objective **2** (AO 2) and Assessment Objective **3** (AO 3), focusing on application and analysis. Candidates were required to observe provided specimens—including weeds, herbicides, and weed seeds—make accurate identifications, and draw logical, context-relevant inferences. The paper also tested candidates' ability to interpret and manipulate data to support informed decision-making. The assessment aimed to evaluate how well candidates can apply knowledge and practical skills from the Field Crop Production syllabus to real-world agricultural scenarios, preparing them for independent enterprise management upon entering the workforce. The paper consisted of two questions: Question **1** assessed specimen-based skills using materials specified in the Centre instructions. Question **2** evaluated data interpretation and analytical reasoning based on a provided insert. Overall candidates' performance was moderate, though several responses revealed weaknesses in plant protection concepts and data manipulation skills.

This year, four centres were assessed on the syllabus, an increase from previous years when only one centre was assessed. As a result, direct year-on-year cohort comparison is limited due to differences in candidate pool size and centre diversity.

Comments on Individual Questions

1 **(a)** Most candidates correctly identified Specimen A (Love grass) and Specimen D (Mexican poppy), showing familiarity with common weed names. Basic observational skills were evident in responses related to leaf width (narrow/broad), indicating partial understanding of morphological features. However, poor identification of Specimens B (Blackjack) and C (Nut grass) suggests limited hands-on exposure to diverse weed types. Incorrect terminology: Many described lifecycles (annual/perennial) instead of morphology. Some used "thin/thick" or "narrow" for vein nature, rather than correct terms like "parallel" or "branched/network" Incomplete descriptions: Morphology responses lacked specificity (e.g., "narrow" without "narrow-leaved"). Centres are advised to strengthen practical training on local weed species, especially Blackjack and Nut grass, through field visits or classroom displays. Integrate terminology drills into lessons to ensure mastery of key terms.

(b) Most candidates correctly identified the appropriate herbicides: Herbicide 1 / Atrazine / Targa Super for Specimen A (Love grass) and Herbicide 2 / 2, 4-D / Amine weed killer for Specimen B (Blackjack). This indicates a reasonable understanding of herbicide-weed matching. However, there was poor understanding of application timing. Many candidates wrote vague responses like "before planting" or "after planting" which are not precise enough. The correct term expected was "post-emergent" (after weeds have sprouted). Some confused pre-planting with pre-emergent, indicating conceptual gaps and general lack of technical language with many candidates failing to use standard agricultural terminology, reducing accuracy. Centres are encouraged to teach herbicide timing using clear categories: pre-emergent vs. post-emergent. With focused instruction on timing terminology and real-context application, candidate performance in this area can improve significantly.

(c) **(i)** Most candidates correctly identified the mode of dispersal for Specimen P (Animal) – linked to hooked/spiny structures; Specimen Q (Self/explosive) – associated with open/ruptured pods and Specimen R (Wind) – correctly linked to light or feathery features. This shows a solid grasp of basic dispersal mechanisms for common weed types.

Specimen S (Water dispersal) was widely misunderstood with many incorrectly stating wind instead of water, indicating limited exposure to water-dispersed seeds (e.g., coconut-type structures). Incomplete or imprecise feature descriptions were noted for P: "thorns" or "sticky" instead of "hooks/spines/spiny burrs"; for Q: "it is open", missing key term: "contained in ruptured/open pods" and for R & S: "light in size" or "light leaves" which are incorrect; should refer to seed weight or structure (e.g., light in weight, fibrous fruit, parachute-like).

Some candidates confused plant parts, describing leaves instead of seeds or fruits. There is need for centres to improve observational accuracy and scientific language to significantly boost performance in practical botany tasks.

(ii) Most candidates answered correctly, identifying weeds (e.g., Thorn apple, Okra, Touch-me-not, Mexican poppy) that, like Specimen Q, use explosive/self-dispersal. This shows a good understanding of seed dispersal patterns and ability to apply knowledge to new examples. However, minor gaps were noted whereby a few candidates named weeds with incompatible dispersal methods (e.g., wind- or animal-dispersed species), suggesting inconsistent knowledge across weed types. Some used common names not on the mark scheme, while acceptable if accurate, this risks misidentification. Centres should encourage candidates to use of locally relevant examples and cross-check against standard names. Overall, well done: this question was a strength area for most candidates.

2 **(a)** Most candidates accurately listed inventory items and quantities from Extract A, showing strong data extraction and recording skills. Correct use of units (e.g. 50 kg bags, 250 g sachets) was generally observed, indicating attention to detail. However, some candidates gave incomplete item descriptions, e.g. candidates wrote "bags of chicken manure" instead of "50 kg bags of chicken manure" while some omitted weight/volume (e.g., "bags of lime" instead of "50 kg bags of lime"). This led to loss of marks, as precision is required in agricultural record-keeping. A few missed minor items (e.g., axe, pickaxe, hosepipe), suggesting rushed reading of the extract. Centres are advised to train learners to record agricultural data with full specifications, quantity + unit + description. With minor improvements in detail orientation, performance on this type of task can be excellent.

(b) **(i)** Most candidates correctly identified core assets (land, buildings, machinery, cash) and liabilities, showing understanding of balance sheet components. Some accurately presented totals and recognised net worth as equity. However, the following weaknesses were noted: non-standard terms used e.g., "money borrowed" instead of "bank loan", which is not acceptable in formal financial reporting. Net worth was omitted or miscalculated by many, correct value is P169,000 (Total Assets – Total Liabilities). Total liabilities were often missing or incorrect must sum:

P10,000 (creditors) + P2,000 (overdraft) + P200,000 (loan) = P212,000

Imbalance in some sheets, both sides must total P381,000.

Centres are advised to teach standard financial terminology, reinforce arithmetic accuracy, and emphasise that a balance sheet must balance. Correctness in format and calculation is key to mastering farm financial records.

(ii) Most candidates correctly concluded that the enterprise is viable or solvent, showing good understanding of financial health. Conversely, many gave incorrect reasoning, stating "the business made a profit" which cannot be determined from a balance sheet alone. This reflects a common misconception between profit (income vs. expenses) and solvency (assets vs. liabilities). The correct reason: Assets (P381,000) > Liabilities (P212,000) giving positive net worth (P169,000) = solvent/viable. Clarifying the distinction between profitability (from income statement) and solvency/Viability (from balance sheet) will strengthen financial literacy in agricultural enterprise management and significantly improve performance.

PAPER 3: COURSEWORK

General comments

This report provides an overview of the performance and submission quality of the 2025 cohort of candidates registered for the Field Crop Production (1256/03) coursework component. This year saw the addition of three new centres to the moderated pool. A notable trend was that all centre-assigned average marks were consistently higher than the moderation averages, indicating a tendency toward overgenerous marking at the centre level. Three of the four centres submitted all required deliverables, including the four-core provider-based assessments, summary mark sheets, centre order of merit, and individual candidate scores. However, one centre failed to submit Field Practical Training (FPT) reports for its candidates. Additionally, several centres initially did not submit all required materials, including appendices, forms, and candidate portfolios. One centre had not submitted any documentation at the start of moderation, raising serious concerns about compliance.

Mark recording and computation errors were identified in three centres, where incorrect formulas were used to weight raw marks. These centres were called to the marking centre to correct their records. It is reiterated that final marks on the syllabus summary sheet must be rounded to the nearest whole number.

Although most centres adhered to the requirement for typed submissions, several centres submitted a combination of typed and handwritten scripts, which contravenes the guidelines. Furthermore, some centres did not adhere to the prescribed format for the Field Crop Production (1256/03) syllabus. Instead, they followed the structure and style of the BGCSE Agriculture (0599/03) coursework, for instance, framing Field Observation reports as traditional treatment-and-control experiments rather than the required comparative studies. There were also concerns about academic integrity: multiple candidate scripts from one centre showed striking similarities in content and writing style, suggesting possible duplication or malpractice. Additionally, some handwritten reports were corrected in red ink, which is reserved for moderators only. Candidates are required to use blue or black ballpoint pens only.

This coursework component comprises four key elements: Farm Diary, Field Practical Training (FPT) Report, Field Observation Report and Practical Tasks Assessment Reports. Centres are urged to strictly follow the Assessment Guide, ensure accurate mark computation, and maintain academic integrity in future submissions.

Comments on Individual Scored Tasks Reports

2.1 Farm Diary

2.1.1 General Observations and Comments

Most candidates submitted well-structured and sequentially organised farm diaries that reflected consistent engagement with crop production activities. Entries were generally chronological, with appropriate dates, activities, and observations as required.

However, some diaries showed suspicious uniformity in phrasing and structure, particularly across candidates from the same centre, suggesting the use of shared templates or excessive guidance, which may compromise individuality and authenticity. A common error was the submission of two separate farm diaries one for each crop instead of a single, integrated diary covering all crop activities. Candidates must

record all field operations in one unified diary to meet syllabus requirements. Several diaries were excessively lengthy, not due to depth of content, but because of repetitive reporting. For example, after replanting due to crop failure, candidates often repeated earlier entries verbatim instead of referencing previous work. This practice inflates volume without adding value and should be avoided. Some centres submitted handwritten diaries, which violates the requirement for typed submissions as stipulated in the Assessment Guide to Centres. Additionally, many reports were only stapled, not properly bound, making them prone to damage and disorganisation. It is also important to note that some diaries included inappropriate sections such as recommendations, conclusions, or evaluations, these are not part of the farm diary and should be omitted. The diary is a factual, day-to-day record of activities, not an analytical report.

Finally, punching holes for binding must be done carefully. In several cases, holes cut through critical entries, especially dates in tables, resulting in loss of essential information. Centres should ensure that binding does not compromise content visibility.

2.1.2 Cover Page

Overall, the cover page was well completed by most candidates, with the majority providing all required information in a neat and organised manner.

However, several errors were observed. Some candidates omitted the enterprise name, writing only the crop name (e.g., “maize”, “watermelon”) instead of a full enterprise title (e.g., “Green Fields Maize Enterprise”). Others missed key details such as centre name, starting date, or completion date. A recurring issue was the failure to label dates clearly; many did not indicate which date was the start and which was the end. Some wrote only a single date or listed dates without formatting, (e.g., 24/05 – 23/07), missing the year or full format. The correct format must be used: e.g., 24/05/2025 – 23/07/2025).

These issues were like those seen last year, indicating that centres need to reinforce attention to detail during preparation. While design and presentation have remained consistent, accuracy and completeness must be prioritised. Centres are reminded to review cover pages before submission to ensure all elements meet syllabus requirements.

2.1.3 Enterprise Details

Most candidates provided accurate and relevant enterprise information, demonstrating a good understanding of key data to record.

- **Crop variety**: The majority correctly stated the specific variety grown (e.g., PAN 53Q for maize). However, some listed incorrect or non-existent varieties, while others reported multiple varieties for a single crop, especially in maize which contradicts the requirement for a uniform crop stand in the project.
- **Plant age**: This was well reported by most candidates, with the age at harvest or project end clearly indicated.
- **Plant population**: Most accurately recorded initial plant numbers. However, a few confused plant populations with spacing, writing only spacing (e.g., 75 cm × 25 cm) instead of total number of plants. These are not interchangeable, population refers to count, not spacing.

- Missing enterprise details: A notable issue was that all candidates who bound their Farm Diary, Field Observation, and FPT reports together omitted the enterprise details page. This suggests the page was either lost during binding or not included intentionally. Centres must ensure that all required components, including enterprise details are clearly presented and preserved in the final submission.

2.1.4 Sequence of Activities

Most candidates recorded activities in a logical and correct sequence, showing a clear understanding of crop production timelines. Most entries followed a realistic progression from land preparation to harvesting. However, some reports showed disordered sequencing, often due to repeating the same activity (e.g., "weeding") across multiple dates without maintaining chronological flow. This disrupted the clarity of the timeline. A significant improvement was seen in date recording compared to the 2024 cohort, but gaps still remain. Some candidates wrote "fortnightly", "weekly", or "as needed" instead of specific dates. These are frequencies, not dates, and do not meet the requirement. Others omitted dates entirely for certain activities, making it difficult to verify timing and project duration. Centres are advised that every activity must have a specific date to earn full credit. Vague or missing dates result in loss of marks. Centres should emphasise accuracy and consistency in dating to ensure full compliance.

2.1.5 Activities / Operations

Most candidates recorded more than the required 10 relevant activities, with clear, practical descriptions of operations. Entries were well-structured, often including tools used, reasons, precautions, and SHE (Safety, Health, Environment) observations. This reflects strong engagement.

However, a common issue was the treatment of project termination. Many candidates listed it outside the main activity table as a standalone note. Termination is an activity and must be included in sequence, with a date and description like all others. Some candidates included unnecessary content, such as definitions or general facts (e.g., "Weeding is the removal of unwanted plants"), instead of describing how the task was performed. This adds no value and wastes space. Repetition of routine tasks (e.g., watering, weeding, cultivation) was common. This is acceptable if each instance has a distinct reason or context (e.g., "first weeding after germination" vs. "second weeding before topdressing"). However, many repeated entries with identical reasons, which reduces authenticity.

Overall, the quality of activity reporting was on par with last year's cohort. Centres should guide candidates to focus on practical detail, avoid redundancy, and integrate all activities, including termination, into the main diary flow.

2.1.6 Tools Used

Tools used for every operation reflected – Most candidates met the requirement by recording at least ten different tools, and linked a tool to each activity, showing good understanding of practical farm operations.

Appropriate tool used for each activity – The majority selected appropriate tools for each task e.g., spades for digging, knapsack sprayers for pesticide application, and clearly described their use. However, a recurring issue was the misclassification of "hand" as a tool. Several candidates listed "hand" as the primary tool for multiple activities (e.g., planting, weeding), which is incorrect. While hands are used to operate tools, they are not tools themselves and should not be recorded as a standalone tool. Instead, candidates should name the actual tool used (e.g., hand trowel, hoe, dibber). If improvised tools are used, describe them accurately but never substitute "hand" for a proper tool.

Centres should clarify this distinction to improve accuracy in future submissions.

2.1.7 Importance of Activity

Most candidates clearly articulated valid reasons for each operation, often providing multiple relevant justifications. A positive shift was also observed. Many candidates now included significance directly in their activity descriptions, improving integration of purpose and practice. This shows good understanding of farming practices.

However, a common error was placing reasons in the "Comments" column instead of the "Description" column. Misplacing this information affects clarity and may result in lost marks. Centres should reinforce correct column use during preparation.

Overall, understanding of activity relevance has improved but now focus must shift to correct presentation and alignment with the required format. Centres are advised to note following clarification:

- The "Description" column should include what was done + why (i.e., the significance).
- The "Comments" column is for observations (e.g., soil condition, plant response, weather effects).

2.1.8 Relevance of Comments

This section showed a noticeable decline in quality compared to the 2024 cohort. Most candidates failed to meet the minimum requirement of 10 relevant observations. Many entries were either missing, vague, or completely unrelated to the activity. Frequent issues included:

- Blank comment columns, indicating lack of understanding
- Generic statements (e.g., "It was hot", "We worked hard") with no link to the task
- Irrelevant notes not tied to crop response, soil, weather, or operational outcomes

Comments should reflect direct observations e.g., "Soil was dry and cracked, affecting seedling emergence" or "Weeds were denser near the north border". Centres must train candidates to observe critically and record meaningful, activity-specific insights, not just complete a form. This area needs urgent improvement.

2.1.9 Precautions Observed

Performance in this section was below standard. Most candidates were providing vague and generic statements such as "protective clothing was worn", without specifying what was worn or why. Strong responses included specific precautions with clear rationale e.g., "A respirator was used during spraying to avoid inhaling chemical fumes", but these were rare. A major gap was the lack of detail on tool hygiene and storage. While some noted "tools were cleaned and stored safely", few described how e.g., "Hoe blades were washed with water and oiled to prevent rust" or explained safety reasons for proper storage.

Compared to 2024, this cohort showed weaker understanding of Safety, Health, and Environment (SHE) practices. Centres should emphasise specificity, context, and reasoning not just compliance. Always link precautions to activity risk and protective action taken. Quality matters more than quantity.

2.1.10 Project Termination

Overall, this section was poorly executed, with limited understanding of what project termination entails. Many candidates confused the term, writing statements like "maize stalks were terminated" rather than

describing the formal conclusion of the enterprise. Key shortcomings noted include principal products and residues rarely named e.g., “maize cobs”, “groundnut haulms”, “sunflower stalks” and their fate was unclear; Residue disposal was often mentioned without detail with phrases like “residues were removed” or “cleared from the field” lacking method, purpose, or residue identification. In some cases, residues only appeared later under marketing e.g., “sold stover” despite not being mentioned at termination, indicating inconsistent reporting.

Centres are advised to clarify to candidates that termination must include final harvest and yield outcome; identification and handling of main products and residues; steps taken to formally close the project (e.g., site clearing, tool storage, final records). Additionally, while viability statements were mostly included, reasons were often missing, vague, or contradictory. Some gave only one reason, while others provided illogical justifications (e.g., “project was viable because we had no pests”, despite low yield). A few centres omitted the viability statement entirely. Compared to 2024, this cohort showed weaker performance in closure reporting. Centres must emphasise clarity, completeness, and logical flow in project termination.

2.1.11 Neatness of Work

Overall, typed reports were neat and well-presented, reflecting good preparation. However, some issues which affected neatness were, printer ink smudges and handwritten corrections (using ballpoint pens) were observed. These should be avoided. Diary tables were often split across pages without repeating column headings, making reading difficult. Tables should start on a new page with full headings.

In contrast, handwritten reports were consistently untidy, marked by heavy cancellations, overwriting, grease stains, soiling, and broken table borders. Some were difficult to read. All farm diaries must be typed as per the Assessment Guide. Handwritten submissions will not meet standards and risk losing marks for presentation. Neatness reflects care and professionalism. Centres must ensure only clean, typed, and well-formatted work is submitted.

2.2 FIELD PRACTICAL TRAINING (FPT) REPORT

2.2.1 General Observations

This diagnostic review evaluates the quality, completeness, and compliance of Field Practical Training (FPT) reports submitted by centres for the 2026 assessment cycle. The FPT component remains a cornerstone of experiential learning, designed to immerse candidates in real farming environments and develop hands-on competencies in crop production. Overall, three (3) centres demonstrated meaningful engagement by providing verifiable evidence of candidate placements on operational farms. These candidates were actively involved in practical activities, fulfilling the core intent of the FPT programme. However, one (1) centre failed to submit any FPT documentation, with confirmation that no field attachments took place, a serious lapse in programme delivery. While all reports were typed and generally neat, inconsistencies in formatting, limited use of ICT, and weak presentation standards were observed. This indicates a need for stronger guidance on report structure, digital skills, and professional documentation practices. The following sections detail key findings and provide actionable recommendations to strengthen FPT implementation and reporting in future cycles.

2.2.2 Cover Page

Most candidates presented neat and complete cover pages, including essential details such as name, subject, centre, and farm. However, critical inconsistencies were observed, particularly from one centre, where:

- *Labelling identifiers were missing or wrongly formatted:* Candidate numbers and centre numbers were missing on most reports. In cases where numbers were written, they were not labelled e.g., "1234" with no indication that it was the candidate number. This creates identification challenges during moderation and data entry. The practice is to always write the candidate number and centre number together, in the standard national format: BW800/1234. This format is clear, traceable, and universally recognised.
- *Missing Dates:* A significant number of candidates did not include Start date of FPT (e.g., 05 January 2025) and Completion date of FPT (e.g., 14 March 2025). These dates are mandatory as they confirm the Duration of attachment, Alignment with the academic calendar and Authenticity of the practical experience
- *Farm Name Entry:* A common error was candidates who completed FPT at multiple farms listed three farm names on the cover page. This is incorrect. Only one (1) host farm should be named on the cover as the primary placement site where the bulk of training occurred. Additional farms can be mentioned inside the report.

2.2.3 Title Page

The quality of title pages was inconsistent across centres, with only a small number of candidates producing well-structured, complete pages. One (1) centre did not submit any title pages at all, a serious omission that undermines the professionalism and authenticity of the report. Common deficiencies noted included:

- Missing signature, many left the signature line blank
- No submission date, critical for tracking and validation
- Centre and candidate numbers omitted, affects identification and moderation
- Incorrect title (Field Practical Training Report) placement
- Presentation & Design, very few candidates demonstrated creativity or neatness in layout, but most used basic, plain formatting with no visual hierarchy.

Overall, the 2025 cohort performed weaker than 2024 in attention to detail, inclusion of mandatory fields, presentation standards. This suggests a decline in supervision and pre-submission review at some centres. Centres are advised to train candidates to structure the title page logically. The heading "Field Practical Training Report" should be centred and at the top or near the top, clearly visible to identify the document type immediately. A well-designed title page sets the tone for the entire report, it should be clean, professional, and complete.

2.2.4 Content Page

Most candidates included a Table of Contents (TOC), which contained most of the expected sections aligned with the FPT Report structure. However, several shortcomings were observed, particularly in accuracy, formatting, and completeness.

- *Missing TOC* - A few candidates did not submit a content page at all, making navigation difficult and reducing the report's professionalism. This is non-compliant with the FPT Marking Guide, which requires a TOC for all reports.
- *Page Number Errors*- In many reports page numbers in the TOC did not match the actual pages. Some appendices were listed but had no page numbers. Others had blank entries or "??" instead of numbers. This undermines the credibility and usability of the report.
- *Structure and order* - Multiple reports showed misalignment with the prescribed structure in the FPT Marking Guide: *Main headings* and *Subheadings* were out of order. Some used custom sections not in the guide. Others omitted required sections (e.g., Daily Log, Summary of Activities)
- *Neatness and formatting* - Widespread presentation issues included inconsistent leader dots, missing, uneven, or replaced with dashes; overuse of bold, entire TOC bolded, losing hierarchy; misaligned page numbers, not right-aligned or unevenly spaced; mixed fonts and sizes which disrupts visual flow; and poor spacing, sections crammed or overly spaced.

While most reports included a TOC, the quality of execution was inconsistent. The 2025 cohort performed below the standard set in 2024. This suggests inadequate guidance or lack of final review before submission. The TOC must reflect the exact sequence and naming as per the official guide. Centres are advised to train candidates based on FPT Marking Guide to design a clean, well-formatted TOC that reflects attention to detail and professionalism.

2.2.5 Declaration of Originality

The Declaration of Originality is a critical integrity statement, yet most candidates submitted weak, incomplete, or informal versions. Only a small group from one centre came close to meeting the standard, though even they missed one key detail, typically the name of the host farm. Across the other two centres, declarations were seriously lacking in Candidate number, Centre number and Host farm name, often missing or inconsistent with the cover page. Candidates placed at Mosesedi Farms frequently listed different farm names in the declaration vs. the cover page, raising authenticity concerns. Many declarations used unacceptable, casual language, such as "It's me who wrote this", "This is my own effort" or "I did it myself". These do not meet academic standards.

The 2025 cohort demonstrated weaker understanding of the declaration's purpose compared to 2024.Errors in detail, consistency, and tone suggest inadequate instruction and lack of standardisation at centre level. Centres must note that the declaration statement require full identifiers: name, candidate number, centre number, farm name, dates. A proper declaration must be formal, complete, and consistent, e.g., "I, [Full Name], Candidate Number BW800/1234, Centre Number BW800, declare that this Field Practical Training Report is my original work, completed during my attachment at [Farm Name], from [Start Date] to [End Date]."

2.2.6 Acknowledgements

A small number of candidates exceeded expectations, delivering strong, thoughtful acknowledgements by recognising more than four individuals or institutions. This is a positive sign of engagement and gratitude. most.

However, most candidates fell short of the minimum requirement, by acknowledging fewer than four. Many correctly named individuals or organisations (e.g., farm manager, supervisor, family member) but lacked clarity in what support was provided e.g., *I thank Mr. Tshosa* but no explanation of his role. Repetition of similar roles was observed e.g., listing three people who all gave advice without differentiation. Some had vague descriptions e.g., *helped me*, *supported me*, *guided me* without specifics.

The expectation is that each acknowledgement should include Who was acknowledged + What specific role or service they provided. An example of strong entry: "I sincerely thank Mrs. K. Ntshabe, Farm Manager at Green Valley Farm, for her daily guidance on land preparation and planting operations."

2.2.7 Introduction

The introduction section was fairly handled, with most candidates successfully naming their host farm, and providing a clear rationale for farm selection. The justifications commonly noted are access to diverse farming activities and qualified supervisors. However, the following key issues were noted:

- *Confusion between expectations and outcomes:* Candidates frequently listed benefits they gained after FPT — e.g., "I learned planting techniques" instead of stating what they hoped to gain before starting. This blurs the purpose of the section, which is to capture pre-attachment expectations.
- *Misplaced content:* Some expectations were written under Findings or Summary, weakening the report's structure. Others repeated expectations in multiple sections.
- *Lack of clarity*: Vague statements like *"I wanted to benefit from the experience*" without specifying how or in what area.

This suggests a need for clearer guidance on the purpose and content of the introduction. Centres should emphasise that pre-attachment expectations must appear in the Introduction only.

2.2.8 Description of Farm Routine

This section showed mixed quality, with strengths in organisational structure and equipment description, but persistent gaps in detail, clarity, and depth.

- *Staff Complement*: Most candidates failed to state the total number of employees which is the basic requirement. Instead, they listed numbers by department (e.g., 3 in planting, 2 in irrigation) or implied the total from an organogram but did not sum it up. The expectation is that the candidate should clearly state: *"The farm has a total of 18 full-time employees*." This must not be left to inference.
- *Staff Qualifications:* Most candidates only listed job titles (e.g., "Farm Manager", "Irrigation Officer") but did not state qualifications (e.g., diploma, certificate, years of experience). A few gave strong descriptions of specialisations e.g., "The agronomist holds a BSc in Crop Science and specialises in pest management." However, unqualified workers were often just called *workers*, with no clarification of their training level. The requirement is to show their qualifications or experience level (e.g., Certified Tractor Operator").
- *Workplace Interaction and Organogram:* Most candidates excelled here, producing clear, accurate organograms showing chain of command, who reports to whom, and departmental structure. This was one of the best-executed parts of the report.

- *Daily Work Schedule:* A major weakness in may reports. Many candidates wrote *We planted maize / We harvested tomatoes.* This describes candidate activity, not the farm's routine. The requirement is to describe the daily schedule of farm employees, including start and end times, shift patterns and scheduled tasks per role (e.g., *Irrigation team starts at 5:30 AM to water crops before sunrise).* The best practice is to use a table format to improve clarity:

Time	Activity	Responsible Team
5:30 AM	Irrigation	Water Management Team
7:00 AM	Land preparation	Field Squad

- *Tools, Implements & Machinery:* Most candidates did well, clearly listing equipment used (*tractors, ploughs, sprayers*) and purpose of each (e.g., *disc plough for primary tillage*). However, over-description issue was noted. Some listed 10+ tools for one task e.g., all hand tools used in weeding which is excessive. Candidates should be guided to focus on key equipment not every minor tool.
- *Technology in Record Keeping:* Another weak area n the report. Many simply stated: *Records were kept using FarmSoft but* did not explain what type of records (production, sales, inputs) or how the software helps e.g., reduces errors, tracks yields, supports decisions. The expectation is that candidates should clearly state: *FarmSoft is used to track input costs and crop yields, helping the manager forecast profits and reduce waste.* A few candidates noted that some farms used no digital tools just manual registers. This is acceptable if stated honestly.
- *Product Preparation for Market:* Most candidates only said: *Products were prepared for market* but did not describe:
  - ✓ Cleaning, sorting, grading
  - ✓ Packaging (bags, crates, labels)
  - ✓ Storage before transport
  - ✓ Transport method to market

  This is insufficient, detail is expected.
- *Profitability Statement:* Very few candidates addressed this well. Only a handful noted: *The farm is profitable because income exceeds expenses.* However, no supporting evidence was provided e.g., sales figures, cost breakdown or seasonal profit trends.

Many omitted this entirely. Even basic estimates (e.g., "*manager reported 15% profit margin*") are better than silence.

2.2.9 Description of Activities

Most candidates accurately described the agricultural activities (e.g., land preparation, planting, weeding) they participated in and correctly explained the purpose or importance of each task. They identified the relevant tools, materials, and equipment used. Most met core reporting expectations which shows good

observational and reporting skills. However, there were critical gaps. One entire centre submitted reports with serious omissions:

- No dates for activities,
- No duration (e.g., how many hours/days),
- No number of workers involved,
- Incomplete tool/equipment listing, some activities had no tools mentioned at all.

This undermines authenticity and limits assessment validity.

Even in better reports, many candidates failed to include:

- Sequence of dates when each activity started and ended
- Duration, how long it took
- Number of workers involved

These are essential for understanding labour use, planning, and task scale.

- *Presentation issue:* Most candidates used continuous prose, making data hard to scan. The best practice is to use a table format to present:

Date	Activity	Duration	Workers Involved	Tools/Equipment Used	Purpose

Tables are strongly recommended in this section since they improve clarity and organisation.

2.2.10 Findings

This section revealed persistent weaknesses in reflection, consistency, and depth with no meaningful improvement from 2024.

- *Mismatched Expectations:* Most candidates failed to link their initial expectations (from the Introduction) to their Findings. New expectations not previously mentioned appeared here. No effort was made to compare what was expected vs. what was experienced. This breaks the logical flow of the report and weakens reflective practice.
- *Missing Critical Reflection:* The vast majority did not state which learning expectations were **not** met. They neither explained why nor suggested how gaps could be addressed (e.g., further training, practice). This shows limited self-assessment and problem-solving awareness.
- *Unexpected Learning Underdeveloped:* Most candidates did identify unexpected skills or knowledge gained e.g., pest scouting, record keeping. But they failed to justify why the experience was valuable or how it will benefit them in future farming practice. Example of weak entry: *"I learned to drive a tractor:*

it was unexpected." This should be: *Driving a tractor was unexpected but valuable*, *it increases my employability and reduces dependency on hired labour.*

The lack of progress in reflective reporting suggests inadequate guidance on how to reflect meaningfully. Centres are advised to teach candidates to revisit their Introduction and cross-check expectations.

2.2.11 Conclusions

The conclusion section was adequate, most candidates successfully reflected on the value of FPT, summarised key lessons learned and linked conclusions to real farming experiences. This shows basic reflective ability and recognition of practical learning. However, the following gap is critical and require improvement. Most candidates failed to provide actionable ideas for improving future FPT experiences. There were vague statements like *Learning can be improved*, or *More training would help*" without specifics.

Candidate were expected to state: "Supervisors could hold weekly review sessions to reinforce skills," or "Farms should assign structured daily tasks with clear learning goals." Without concrete suggestions, conclusions lack depth and forward-thinking. A few candidates proposed how farms could improve training, how centres could better prepare learners and how supervision or feedback could be strengthened. This limits the impact and usefulness of the report.

While conclusions were relevant and coherent, they were underdeveloped in practical application and recommendation quality. Centres should train candidates to move beyond "what I learned" to "how it can be better" and offer specific, realistic improvements for farms, supervisors, and learners

2.2.12 Recommendations

This section was moderately successful, with most candidates offering suggestions that are practical, observation-based, and aligned with real gaps seen during attachment. However, critical shortcomings were noticed. Most candidates showed weakness in balance and completeness. Few stated practices that should be *Maintained* e.g., good hygiene, skilled supervision, timely planting. Very few identified practices to be *Discouraged* e.g., overuse of manual labour, poor safety habits, lack of digital tools. A strong recommendation section should cover all three areas:

- Keep doing (what is working)
- Start doing (what should improve)
- Stop doing (what is ineffective or harmful)

Most reports only covered one (improvements). missing the full picture.

Lack of Justification: Many suggestions were stated without explanation e.g., *Use drip irrigation* but no reason why. Strong entries included benefits e.g., *Switch to drip irrigation to reduce water waste and improve crop yield*.

Advise for Centres is to teach candidates to structure recommendations in three clear categories: Continue (effective practices), Improve (areas needing change) and Discontinue (ineffective or risky practices). Encourage brief justifications for each, using real examples from the farm.

2.2.13 Rating by Training Officer in Industry (TOI)

Most candidates received high ratings from their Training Officers in Industry (TOI), which reflects good performance, professional conduct, and practical competence on the farm. This suggests many learners were well-prepared and positively received by host farms.

However, critical issues were:

- Three different TOI forms were used at Mosesedi Farms, despite BEC issuing a standard template. This indicates poor coordination and non-compliance with national guidelines. It also risks inconsistency in assessment and moderation challenges.
- Some candidates had no TOI marks because they used a wrong or unofficial form or failed to submit the BEC-prescribed TOI rating sheet. This is a serious procedural failure; TOI input is mandatory.
- Lack of written feedback: Most TOIs only gave scores with no comments to justify ratings. This is a missed opportunity for constructive feedback and learner growth.

All centres must use only the official BEC TOI rating form, ensure candidates submit it properly and confirm TOIs provide scores and written comments.

2.2.14 Overall Report Quality

Presentation & Creativity: Many candidates showed good effort in design, using organograms, tables, images, and visual aids to enhance clarity and engagement.

Binding Quality: Most reports were professionally bound in quotation files. Pages were secure, durable, neatly aligned, and easy to flip through, no loose or damaged pages. This was a notable improvement over 2024, a sign of greater care in final presentation.

Critical Weaknesses were:

- Poor Sequencing: In many reports, the actual page order did not match the Table of Contents, sections appeared out of sequence and some missing entirely (e.g., no Declaration, no Appendices). This creates confusion, undermines credibility, and suggests rushed submission.
- Incomplete Reports: Several candidates omitted required sections, a serious issue for assessment.

Centres must use a final checklist before submission to verify that all sections are included, pages are in correct order (matching TOC), and visuals are labelled and referenced.

2.2.15 Appendices

Most candidates correctly included proof of attachment, a key requirement. Useful documents were often attached: (farm records: pesticide logs, sales invoices, summary sheets and evidence of real engagement: photos, letters, forms). This supports authenticity and practical experience.

Critical Issues:

- *Wrong or irrelevant letters submitted:* Some used centre-generated request letters addressed to government departments (e.g., Department of Crops) instead of to the actual host farm. This shows poor guidance and lack of personalisation. Expectation is that letters must be addressed to the farm, not a ministry.

- *Incomplete or narrow evidence:* Some submitted only one record e.g., butternut sales only, missing variety. Candidates should show multiple record types (inputs, labour, yields, sales).
- *Poor Quality Photos:* Many photos unlabelled (no captions or descriptions). Identical images across candidates from same centre. This suggests shared or copied pictures. Some equipment photos clearly from Google, not taken on-site. Few photos of actual farm operations (planting, spraying, harvesting). This raises red flags for authenticity and in extreme cases, suggests malpractice. Each image should have a caption like: *Fig. 1: Ploughing activity at Green Valley Farm, 12 March 2025 – Tractor in use*
- *Serious Procedural Violation:* Use of Government FPT forms instead of official BEC-prescribed assessment tools. This is non-compliant and undermines standardisation and moderation. Only BEC-approved forms (as in the Assessment Guide to Centres) must be used.

Centres must ensure candidates use only BEC-approved FPT forms, submit farm-specific, personalised letters, include labelled, original photos taken during attachment, show variety of authentic farm records and avoid duplicate or internet-sourced images.

2.3 FIELD OBSERVATIONS

2.3.1 General Comments and Observations

This Field Observations assessment required candidates to produce a detailed report of the scientific observation carried out during the course at their centre. The following observations were made:

- *Most reports were typed:* Most candidates submitted typed reports, supporting readability, professionalism, and alignment with modern academic standards.
- *Good binding quality:* All reports were securely bound in quotation files, pages were intact, well-protected, and easy to review. This reflects care in final presentation.
- *General understanding of observation task:* Most candidates engaged in hands-on field activities and attempted to document their work, showing basic awareness of the observation process.

Key Areas of Concern

- *One centre submitted over 50% of reports in handwriting:* This does not meet the requirement for typed submissions and places candidates at a disadvantage during moderation.
- *Wrong format used by several centres:* Some candidates followed the BGCSE Agriculture 0599/03 format instead of FCP 1256/03. This caused structural mismatch (e.g., missing variables, no hypothesis) and made moderation difficult.
- *Signs of duplication and lack of originality:* Multiple reports showed identical wording, same spelling errors, and matching sentence structures. This suggests shared writing, copying, or insufficient individual supervision.
- *Unprofessional corrections on final work:* Some typed reports had handwritten cancellations, insertions in pen, or crossed-out text. This is not acceptable in a final submission.

- *Non-compliance with scientific study design:* Some reports were not comparison studies, a core requirement of FCP 1256/03. Examples: "*I observed how maize grows*" (descriptive only), has no treatments, control, or measurable data. These do not meet the scientific method standard.
- *Lack of supervisor oversight:* The presence of repeated errors and format violations indicates inadequate pre-submission review by centre staff.

2.3.2 Title of Investigation

Most candidates correctly included a measurable parameter in their titles such as *growth, yield, or plant height*. This shows understanding that the study must focus on an observable, quantifiable outcome. Nonetheless, most titles lacked a comparison element, a core requirement of FCP 1256/03. Titles were descriptive, not comparative, e.g.: *Observing the growth of maize, Study on sugar beans* or Monitoring *crop yield.* These do not reflect a scientific experiment; they reflect general observation. Only a few candidates (from one centre) used correct comparative structure. Example: *Comparing the effects of calcium nitrate and chicken manure on sugar bean yields at week 12*.

This is not a new issue; poor title design has been a recurring weakness since the start of FCP 1256/03 assessments. Centres must intervene early to prevent this longstanding weakness from continuing in 2026. Teach the correct title format: Comparing the effects of [Treatment A] and [Treatment B] on [Crop] [Parameter] at [Time/Stage]. Each title must have:

- Two treatments
- One crop
- One measurable parameter (e.g., yield, height)
- One timeframe (e.g., "at week 8")
- Comparison wording

2.3.3 List of Equipment / Materials Used for Investigation / Inputs

Candidates are expected to provide a clear, accurate list of all inputs, tools, and materials used in the study. Place the list in the correct section after the title before procedure. This must match the centre's official list to ensure authenticity and moderation consistency. However, the following weaknesses were observed:

- *Incomplete lists:* Many candidates omitted key items e.g., measuring tape, fertiliser types, or weighing scale. This suggests poor record-keeping or last-minute preparation.
- *Mismatched content:* Some candidates listed items not used or not available at the farm. Others included equipment irrelevant to their study (e.g., *tractor in a small plot trial*)
- *Discrepancies between centre and candidate lists:* Some centres submitted multiple versions with different tools/materials. This raises concerns about standardisation and supervision.
- *Poor placement:* One centre appended the list at the end, not in its proper place (after title). This disrupts report flow and makes moderation difficult.
- *Candidates did not use centre-provided lists:* Despite centres having accurate lists, none of the candidates copied or adapted them. This indicates lack of coordination and supervisor follow-up.

Overall, 2025 performance on this section was weaker than 2024, a step backward. Centres must prepare and approve a standard materials list per study and ensure every candidate doing the same investigation uses the same core list. Each list should include tools (e.g., spade, ruler, sprayer), inputs (e.g., fertiliser type, seed variety), measuring devices (e.g., scale, tape), safety gear (if used), with no irrelevant or unused items. Supervisors must review before submission to confirm the list matches what was used.

2.3.4 Objectives / Aims of Observation

Most candidates wrote clear, relevant objectives that matched their crop, parameter, and treatment type. The objectives included positive direction e.g., "to determine which treatment *increases* yield". Most were achievable and measurable, using quantifiable outcomes like *height, number of pods, or kg/plot.* This shows good understanding of scientific aim-writing. Key weaknesses observed include:

- Incomplete objectives: Many stated only one treatment, example: "To determine the effect of manure on maize growth".
- Missing comparison: Should include two treatments.
- Lacked comparison language: A core requirement for FCP 1256/03. These read like BGCSE 0599/03 aims, descriptive, not comparative. No reference to compare or vs, even when two treatments were implied, the wording did not show contrast.
- Some objectives copied from past templates: Used outdated or junior-level phrasing not aligned with scientific investigation standards.

2025 performance shows no improvement over 2024, despite repeated feedback. Centres must teach the correct objective format: *To compare the effects of [Treatment A] and [Treatment B] on [Parameter] of [Crop],* e.g., *To compare the effects of calcium nitrate and chicken manure on yield of sugar beans at harvest.* Before fieldwork begins, confirm that the title and objective use same crop, parameter, treatments. An objective is not just a goal, it is the foundation of the experiment. If it is not comparative, the whole study fails to meet FCP 1256/03 standards. Centres must enforce this rigorously in 2026.

2.3.5 Statement of Factor to be Observed

Most candidates correctly linked the problem to their title and crop. They identified real, observable issues e.g., stunted growth, low yield, or poor germination. Some gave plausible causes such as poor soil, lack of water, or pests. This shows basic observational skills and relevance to field practice. However, the following weaknesses were observed:

- *Causes were vague or incomplete:* For example, *due to lack of nutrients*, but which nutrients? No mention of nitrogen, phosphorus, potassium, etc. This lacks scientific precision.
- *No clear link to treatments in the title:* Most failed to connect the problem to the two treatments being tested, e.g., if testing manure vs. NPK, they did not say: This study compares organic and inorganic options to address nutrient deficiency.
- *Missing proposed solution:* Candidates did not suggest a choice between the two treatments. Instead of *the study will test which works better*", many just described the problem and stopped.

- *No benefit to farmers:* Almost all candidates were silent on how the study helps farmers, which treatment is more affordable, sustainable, or accessible, and what practical impact the results could have. This section was weakly developed, like in 2024, with no visible improvement.

Centres are advised to train candidates to think like problem-solvers, not just observers. teach Supervisors must ensure that candidates to write a complete problem statement which has a:

- Clear problem (e.g., low yield)
- Specific cause (e.g., nitrogen deficiency)
- Link to both treatments
- Proposed solution (comparison as answer)
- Benefit to farmers or community

2.3.6 Factor to be Compared / Contrasted / Manipulated

Most candidates applied treatments correctly in the field, showing practical understanding. They used real inputs (e.g., fertilisers, mulch) and applied them at measurable rates. Some clearly introduced the manipulated factor e.g., applied treatments at specific growth stages. This shows hands-on engagement with the experiment. However:

- *Most failed to clearly state the manipulated factor:* Even when treatments were applied, the variable being tested (e.g., type of fertiliser) was not explicitly named. Instead, candidates wrote: *We used manure and NPK,* but did not say: The manipulated factor was fertiliser type.
- *Lack of comparison framing:* Most treated one input as the *main treatment* and the other as *normal practice,* not as equal test options. This undermines the scientific fairness of the study.
- *Missing critical details on how treatments were introduced:* Many listed what was applied, how much, method, but omitted plot placement, timing, crop stage, frequency, or replication.
- *One entire centre omitted this section:* No mention, not even in procedure of how or when treatments were applied. This makes the study impossible to validate or moderate. This is a serious omission; the manipulated factor is the core of the experiment. Centres must train candidates to see this as essential, not optional. This is not just procedure but scientific transparency. Ensure full, clear, and standardised reporting of the manipulated factor in 2026, include:
  - ✓ Placement: Which plots received which treatment?
  - ✓ Timing: When was each treatment applied?
  - ✓ Crop stage: How old were the plants?
  - ✓ Rate: How much per square metre?
  - ✓ Frequency: Once? Repeated?
  - ✓ Replication: How many plots per treatment?

2.3.7 Number of Units per Treatment / Manipulation and Size of Unit / Age

Most candidates correctly stated the number of plots per treatment (e.g., 2 plots for manure, 2 for NPK). They clearly identified which treatment was test and which was control. Field layouts and sketches often showed proper plot organisation. Units were realistic in size (e.g., *2m × 2m plots*) and suitable for small-scale trials. This shows good practical planning and awareness of experimental design. Nonetheless the following weaknesses were observed:

- *Confusion about replication:* Many candidates said: *There was no replication,* but their sketches showed 2 or 3 plots per treatment which is replication. This reveals lack of understanding of the term.
- *Incorrect justification for low/no replication:* Some claimed no replication due to lack of seeds/fertiliser/time. This is not acceptable. Replication is non-negotiable in scientific studies. Even with limited resources, minimum replication (2–3 plots per treatment) is possible and required.
- *No explanation of unit size or age:* Most stated 2 plots but did not say size (e.g., 2m × 2m). Crop age at start of experiment was not mentioned. Uniformity of units, *were they similar in soil, slope, sunlight?*
- *Inconsistent reporting:* Some wrote no replication in text but showed replicated plots in diagrams. This creates confusion and undermines credibility.

Performance was on par with 2024. Centres must note that replication is not optional but fundamental to valid scientific comparison. Ensure candidates understand and apply it correctly in 2026.

2.3.8 Layout / Sketch plan of investigation

All candidates provided a sketch, none were missing. Most included a legend/key to explain symbols (e.g., ⊡ = *manure plot*). Sketches showed realistic plot arrangements and appropriate spacing. Dimensions were sometimes included. This shows basic grasp of visual representation. Nonetheless:

- *Identical sketches across candidates*: In some centres, all sketches were the same, including identical errors (e.g., *mislabelled plots, wrong symbols*). This suggests a single template was used not individual work and raises serious concerns about authenticity
- *Only one treatment shown:* Despite having two treatments in their study, most sketches displayed only one. The control or second treatment was missing, erasing the comparison element.
- *Poor or missing titles:* Most did not title their sketch. When present, titles were not formatted (not bolded, underlined, etc.). Titles often named only one treatment e.g., *Manure application layout.* This fails to reflect full scope of the study.
- *Titles lacked key information:* Missing crop name, both treatments, and clear purpose (e.g., *Comparison of Manure and NPK on Maize Plots*)
- *Incomplete labelling:* While legends were present, many sketches did not label individual plots, omitted dimensions (e.g., *2m × 2m*), did not mark boundaries, paths, or replication zones.

Compared to 2024, sketches in 2025 were less detailed, less individual, and less accurate. This is a step backward. A sketch is not just a drawing but evidence of how the experiment was set up. If it is incomplete, copied, or missing key elements, the entire study's validity is questioned. Centres must enforce strict standards in 2026 to reverse this regression.

2.3.9 Approach/procedure

A few candidates (from one centre) wrote clear, step-by-step procedures. Some included basic actions: planting, applying treatment, or measuring growth. A few mentioned tools used e.g., ruler, scale, or tape measure. This shows isolated examples of strong practice, proving it is achievable. Nonetheless:

- *More than half did not write procedure at all*: They either left the section blank section or just one line: *We planted and observed*. This is unacceptable for a scientific investigation.
- *Procedures were too general:* For example: *We applied fertiliser*, or *We measured growth.* No detail on how, when, where, or by what method.
- *Only one treatment described:* Most wrote procedures for just one input, treating the other as normal practice or control. This fails to show true comparison.
- *No numbering or sequence:* Most wrote in paragraphs, not numbered steps. Some steps were out of order, e.g., planting after data collection.
- *Missing critical details:* Candidates failed to explain which plots got which treatment, when treatments were applied (e.g., at 2 weeks after planting), how measurements were taken (e.g., weighed five plants from each plot using a digital scale), how data was recorded, or how the study ended.
- *Vague data collection descriptions:* For example, *we used a weighing scale,* with no information on what was weighed, how many samples, how often, how results were recorded.

This year's cohort performed worse than the 2024, which is a notable regression. Centres re reminded that the procedure is the instruction manual if someone else cannot repeat the study, it is not good enough. Centres must insist on completeness, clarity, and scientific fairness.

2.3.10 Information Collected/Data

Most correctly identified what to measure e.g., plant height, mass of yield, or number of pods. Units of measurement were mostly accurate cm, g, or number per plot. Most named the correct instruments: measuring tape or weighing scale. Many who used the weighing scale, specified scale capacity e.g., digital scale (0–5kg). Nearly all planned to record data in tables, the best practice for clarity. This shows solid understanding of data types and measurement tools. However:

- *One entire centre omitted units:* All candidates from this centre listed measurements but no units, e.g., *We recorded weight* but grams missing. This makes data meaningless.
- *Misuse of biomass*: Some wrote: *We measured biomass.* Biomass is not measured but it is calculated (e.g., dry weight after processing). The correct practice is to weight the plant material and determine the biomass (dry mass).
- *Incorrect verb: measured* instead *counted the number of leaves*.
- *Lack of precision:* must state *We counted the number of leaves per plant,* or *We measured plant height in cm.*
- *No description of counting method:* Candidates said: *We counted pods* but not how many plants sampled per plot or total, or whether this was done weekly or at harvest.

- *Confusing data with results:* Many used results when they meant data. Data = raw numbers collected while Results = analysed or interpreted data. Candidates must say: *Data was recorded in a table.*

Centres are cautioned to correct errors early to ensure professional, scientific reporting since precise language and complete detail make data credible and usable.

2.3.11 Analysis of Findings / Implications of Findings

Almost all candidates used tables to present findings the most appropriate method. The column headings were mostly correct. Parameters and units of measurement were included. Data was organised and neatly laid out. Most avoided graphs which is correct for FCP 1256/03 (tables are preferred). This shows good grasp of data presentation format. But the following weaknesses were key:

- Weak, vague table titles: Most wrote Results table or Data collected
- Missing information: Some did not indicate crop name, treatments compared, parameter measured, statistical summary (e.g., mean yield of sugar beans).
- Titles not formatted: Bold, underline, or italics not done.
- Row headings (X-axis) not labelled: For example: Left column should say Treatment or Plot but was blank or just 1, 2, 3. This makes it hard to interpret.
- Mislabelled treatments as control vs test: Even when study was comparative, many called one treatment control. This suggests bias, undermining scientific fairness.
- No reference to statistical parameter in analysis: Most said: Treatment A gave better results but did not indicate what was compared (mean or total yield?), how much difference (e.g., manure increased average yield by 1.2 kg) or what was the calculated value.
- Concluding statement lacked key elements: It should include crop, both treatments, parameter, and statistical result (e.g., mean height). Most missed 2 or more entries.
- Calculations done in analysis section: Some showed working (e.g., averaging) in the main report, cluttering the analysis and breaks guidelines. This should be in Appendix.

There is a slight decline from 2024, Centres must teach proper concluding statement: “The [statistical parameter] of [parameter] for [crop] was higher under [Treatment A] than [Treatment B], suggesting it may be more effective. This section is not just showing data it is interpreting it correctly and professionally. Centres must enforce precision, completeness, and neutrality.

2.3.12 Conclusion

A few candidates (from one centre) correctly restated the purpose, linking back to the objective. Most reported the key result e.g., *Manure gave higher yield.* A handful mentioned unexpected issues like pest damage or uneven growth. A slight improvement in result reporting over the 2024, shows some progress but still far from expected standard.

- Purpose not restated correctly: Most wrote generic statements like We did an experiment, but not This study compared manure and NPK to improve bean yield, hence failed to reconnect to the original question.

- Findings stated but not explained: Candidates stated Treatment A was better but there was no discussion of possible reasons (e.g., Manure may improve soil structure or NPK might have been applied too late).
- *No answer to the research question:* The core task *Which treatment works better?* was not answered directly. There was no final verdict or comparative conclusion, e.g., *Therefore, chicken manure is more effective under these conditions.*
- *No discussion of objective achievement:* Candidates did not state: *The aim was met because we identified the better treatment, o*r: *The objective was only partially met, more replication is needed.*
- *Only 2 centres addressed errors / unexpected factors:* Most candidates ignored pest attacks, rainfall variation, uneven germination, or human error in measurement. These affect validity and must be acknowledged.
- *Lessons learned not stated:* There was no reflection on what was learned about farming, what the learners would do differently next time, or how this helps real farmers. This is a recurring blind spot, now a systemic gap.

Centres are advised to note that for a strong closing statement candidate must:

✓ Restate the purpose (crop + treatments + goal)

✓ Summarise the main finding (which worked better + key number)

✓ Answer the research question (clear verdict)

✓ Note any errors or unexpected factors (pests, weather, etc.)

✓ State one lesson learned (for farming or future study)

A conclusion is not a repeat of data, it is sense-making. Centres must teach reflection, not just reporting.

2.2.13 Recommendations

A few candidates (from one centre) made relevant suggestions e.g., *Use more plots, increase replication*. Some linked recommendations to accuracy showing awareness of scientific improvement. A handful mentioned scaling up e.g., Try on larger farm plots. This shows isolated understanding but not widespread. Most report showed the following deficiencies:

- R*ecommendations did not match findings:* For example, finding: Manure gave better yield. Recommendation: Farmers should use both manure and NPK. No clear preference, contradicting own data. The expected practice is to prioritise manure based on higher yield.
- *No rejection or caution for weaker treatment:* Even when one treatment underperformed, candidates still recommended it.
- *Recommendations too vague or generic:* Improve farming, Use better methods, Try different inputs were common, but these are neither specific nor actionable.
- *Procedure improvements lacked reasoning:* Some suggested increasing plot size or using more plots but did not explain why e.g., More plots improve reliability or larger plots reduce edge effects.

- *Only one centre addressed procedural upgrades:* All others omitted any suggestion to improve future studies, missing chance to show scientific thinking.
- *No link to real-world application:* Few suggested that extension officers should do demonstrations, Train farmers on compost use, or Test in different seasons

Centres should emphasise recommendations that the data support. The norm is to phrase it: *Based on higher yield, chicken manure is recommended over calcium nitrate for sugar beans in similar conditions.* Note that recommendations are not guesses but evidence-based actions. Centres must insist on logic, clarity, and relevance.

2.3.14 Precautions / Safety, Health, and Environment

Most identified personal safety risks: cuts from tools, sun exposure, insect bites, slips or falls. Nearly all mentioned protective gear: gloves, long sleeves, hats, or closed shoes. Some noted safe tool handling and proper storage. A few mentioned hygiene e.g., washing hands after handling manure. This shows basic awareness of personal safety consistent with 2024. Even so, there were areas of concern:

- *Zero mention of environmental risks:* No candidate noted soil degradation from over-fertilising, water contamination (runoff of manure/NPK), harm to beneficial insects, or plastic waste from packaging. This is a major gap. SHE includes Environment, not just Safety.
- *No mitigation strategies:* Candidates said they wore gloves but did not explain why or how it reduces risk. Gloves prevent skin contact with manure, reducing infection risk. Even fewer suggested what to do if something goes wrong.
- *No actionable SHE controls:* For example, apply fertiliser before rain to reduce runoff, store chemicals in sealed containers away from water sources, or rotate plots to prevent soil fatigue.
- *No link between hazard and action:* For example, Hazard: Manure may contain pathogens. No follow-up: So, compost properly and avoid fresh application near harvest.
- *As in 2024, recognition without response:* still no intelligent mitigation, a persistent weakness for years.

Centres are advised to teach the 3-part SHE framework, every candidate must address:

1. Hazard (What could go wrong?)
2. Risk (Who/what is affected?)
3. Control (How will you reduce it?)

Include environmental threats as mandatory: Must mention at least one: water pollution, soil health, biodiversity (e.g., earthworms, bees), chemical leaching or waste management. Centres must break the cycle of surface-level responses. Require mitigation, not just actions. Note that SHE is not just wear gloves but thinking ahead about people, plants, and planet.

2.3.15 Alignment to Existing Literature

A few candidates attempted to cite sources, showing awareness of research norms. Some recalled general agricultural knowledge e.g., benefits of manure, role of nutrients. A handful tried to use APA style, proof that the format has been taught somewhere. But no one fully succeeded in linking or formatting correctly.

- *Most did not attempt the section:* Blank responses or no literature used. Entire centres ignored this requirement
- *No meaningful connection to literature:* Candidates stated facts, but did not relate them to their findings, e.g., Manure improves soil, or We used manure. But no: *This supports our higher yield, as improved soil may have boosted growth.*
- *Facts treated as literature:* Candidates wrote: It is known that… or Everyone knows… This is not valid. Candidates must cite a real source: book, guide, article, or manual.
- *No use of linking language:* Reports were missing: *This aligns with…, Our results support…, This differs from…*, or *This may be because…*
- *Referencing attempted, but incorrect:* A few tried APA style but with wrong punctuation (e.g., commas instead of periods), missing italics for book/journal titles, Incorrect author formatting (e.g., Ministry, 2023 without proper naming), No hanging indent or proper structure,
- *No references matched APA standards:* Not a single candidate submitted two correctly formatted references. Even when sources were relevant, formatting errors made them invalid.

Centres should note that this section is not about what candidates know but about how they connect their work to wider knowledge. Centres must teach citation as a skill not a formality.

2.4 PRACTICAL TASK ASSESSMENT

General Observations and Comments

Submission of portfolios - All centres submitted candidate portfolios as required under the Teaching Syllabus, fulfilling the basic requirement for provider-based assessment validation. These portfolios serve as essential evidence for moderation and summative score inclusion. However, critical gaps were identified:

- Several centres failed to submit video evidence supporting candidate performance.
- Video clips, particularly for tasks rated at prescribed mark ranges, were either missing or incomplete.

Defaulting centres were summoned to BEC to submit outstanding materials and rectify deficiencies. Centres must ensure complete portfolio submission, including video documentation, in line with the Field Crop Production Assessment Guide. Video evidence is mandatory for verification and must be retained for moderation.

Evidence of Assessment - The Assessment Guide clearly stipulates that all practical assessments must be supported by documented evidence maintained in the Centre's portfolio system. Despite this:

- Many centres lacked sufficient evidence to validate awarded marks.
- Video clips were not submitted for key tasks.

Centres must routinely capture and archive video evidence across performance levels to support transparency and authenticity of scoring.

Submission of relevant appendices – A significant number of centres failed to submit required appendices: Appendix B (Candidate Assessment Record) and Appendix C (Moderation Checklist). This omission undermines the credibility of the assessment process, as these documents are vital for verifying Assessment consistency, Moderation compliance, and Authenticity of marks awarded. All appendices must be completed, signed, and submitted with the portfolio. Their absence will result in non-validation of practical scores.

Portfolio Binding and Organisation- Portfolio presentation was unsatisfactory in approximately 50% of centres. Key issues noted include the following:

- Practical task forms not properly bound: Many secured only with staples, leading to loose, disorganised pages.
- No chronological order: Forms were mixed, with no arrangement by candidate number.
- In some cases, scripts were loose in boxes, with no identification or structure.

Personnel from affected centres were called to BEC to reorganise forms in ascending candidate number order. All portfolios must be securely bound, clearly labelled, and logically arranged by candidate and task

Computation of marks – This year's mark computation was the weakest in recent assessment cycles.

Major concerns were:

- Use of outdated mark compilation forms, not aligned with current syllabus requirements
- Inconsistencies in total mark calculation across tasks
- Arithmetic errors and missing entries in score sheets
- Lack of verification, no evidence of internal checking

These errors compromise the reliability of reported scores and increase moderation workload. Centres are advised to conduct internal audits before submission and adhere strictly to the Assessment Guide to ensure valid, credible, and moderated results.