



# basic education

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **AGRICULTURAL MANAGEMENT PRACTICES**

### **GUIDELINES FOR PRACTICAL ASSESSMENT TASKS**

**2012**

**These guidelines consist of 13 pages.**

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## **AGRICULTURAL MANAGEMENT PRACTICES**

### **Introduction**

The seventeen National Curriculum Statement subjects which contain a practical component all include a PAT, i.e. a Practical or Performance Assessment Task. These subjects are:

- **AGRICULTURE:** Agricultural Management Practices, Agricultural Technology
- **ARTS:** Dance Studies, Design, Dramatic Arts, Music, Visual Arts
- **HSS:** Life Orientation
- **SCIENCES:** Computer Applications Technology, Information Technology
- **SERVICES:** Consumer Studies, Hospitality Studies, Tourism
- **TECHNOLOGY:** Civil Technology, Electrical Technology, Engineering Graphics and Design, Mechanical Technology

A PAT allows the educator to directly and systematically observe applied competence. The PAT comprises the application/performance of the knowledge, skills and values particular to that subject and counts 25% (i.e. 100 marks) of the total promotion/certification mark out of 400 for the subject. In the two Arts subjects Design and Visual Arts, the PAT counts 37,5% (i.e. 150 marks) of the total promotion/certification mark out of 400 for the subject.

The PAT is implemented across the relevant terms of the school year and should be undertaken as one extended task, which is broken down into different phases or a series of smaller activities that make up the PAT. The planning and execution of the PAT differs from subject to subject.

### **PERFORMANCE ASSESSMENT TASK FOR AGRICULTURAL MANAGEMENT PRACTICES**

1. The aim of the Performance Assessment Task (PAT) for Agricultural Management Practices (AMP) is to assess management skills, entrepreneurial skills, research skills, marketing skills, operational skills and technical skills of learners in the production enterprises which they are exposed to.
2. In Grades 10–12 a total of at least THREE production enterprises must be utilised that would consist of least ONE animal production enterprise or at least ONE plant production enterprise.
3. The context in which the subject is offered is subject to the wide range of different production systems, production enterprises, management approaches and ecological differences between the different regions in the country. The PAT has to allow for this wide range of possible approaches and applications.
4. These PAT guidelines provide criteria to assist in the standardisation of this wide variety of possibilities in Agricultural Management Practices (AMP).
5. The PAT will show progression in complexity, content and context from Grade 10 to Grade 12.
  
6. The PAT activities should link with the content of the relevant grades.
7. The Practical Assessment Tasks for Grades 10 and 11 are set, marked/assessed and moderated internally. The Practical Assessment Task for Grade 12 is set and marked/assessed internally and externally moderated.
8. The components of the PAT are completed under controlled conditions and evidence of each activity or task is combined into a learner file for each learner.
9. The Performance Assessment Tasks (PATs) in Grades 10–12 consist of the following components:

- A management overview based on the annual production plans for the management of the relevant enterprises
- Practical tasks which are comprehensively assessed
- A management test which consists of application questions, like case studies and scenarios based on activities in the above management plans for production
- A record sheet of time that the learner spent in a practical situation or production enterprise

**Summary of the number of tasks/activities required for the PAT from grade 10 – 12:**

PAT COMPONENT	NUMBER OF ACTIVITIES			WEIGHTING	FOCUS
	GRADE 10	GRADE 11	GRADE 12		
<b>Management overview</b>	1	1	1	20%	Planning
<b>Practical activities</b>	3	3	2	50%	Operational skills
<b>Management test</b>	1	1	1	25%	Application
<b>Records of time</b>	Record sheet of learners			5%	Experience

**Layout of the PAT: Animal Production**

MANAGEMENT OVERVIEW		PRACTICAL ACTIVITIES			MANAGEMENT TEST	TIME REGISTER
Production planning		Operational Skills (Practical and management)			Application	Experience
Progression in complexity, content and context						
20%		50%			25%	5%
Grades 10–12		Grade 10	Grade 11	Grade 12	Grades 10–12	
Goal setting • Where you want to take the business	Part of the management plan	Basic principles and complete background of enterprises	Production driven	Financial-, marketing-, product processing orientated		<b>Time spent in/on production enterprise (Register signed by learners and supervisor on the site)</b>
Planning (Production program) • Management programme of the section	<ul style="list-style-type: none"> <li>Human resources</li> <li>Marketing</li> <li>Wean</li> <li>Feed/pastures, feed flow etc.</li> </ul>	Types of pastures Breed evaluations Etc.	Complete management programme Pasture aspects	Group leader skills Marketing plan Feed flow programme Daily management		
Organising/Implementing /Execution	<b>(Practically implementable)</b> <ul style="list-style-type: none"> <li>Vaccination</li> <li>Castration</li> <li>Selection</li> <li>Identification – health</li> <li>Record-keeping</li> </ul>	Basic management • Dehorning	Disease management • (Dosing, vaccination, etc.) Pasture condition Execution of planning actions	Product – <ul style="list-style-type: none"> <li>Harvest</li> <li>Classification</li> <li>Processing</li> <li>Marketing</li> </ul>		
Controlling and checking • Challenges and successes	<b>(Practically implementable)</b> <ul style="list-style-type: none"> <li>Analysis of information</li> <li>Determination of pasture condition</li> </ul>	Day routine Inspection	Camp rotation Feeding trial	Analyse planning process		

**Layout of the PAT: Crop Production**

MANAGEMENT OVERVIEW		PRACTICAL ACTIVITIES			MANAGEMENT TEST	TIME REGISTER
Production planning		Operational Skills (Practical and management)			Application	Experience
		Progression in complexity, content and context				
20%		50%			25%	5%
Grades 10–12		Grade 10	Grade 11	Grade 12	Grades 10–12	
Goal setting <ul style="list-style-type: none"> <li>Where are we going with the enterprise</li> </ul>	Part of management plan	Basic principles and complete background of different enterprises	Production driven	Financial-, marketing-, product processing orientated		<b>Time spent in/on production enterprise (Register signed by learners and supervisor on the site)</b>
Planning (Production programme) <ul style="list-style-type: none"> <li>Management – programme of enterprise</li> </ul>	<b>(Practical performable)</b> <ul style="list-style-type: none"> <li>Human resources</li> <li>Marketing</li> <li>Different implements</li> <li>Soil preparation</li> <li>Seed</li> <li>Fertilisers</li> <li>Pesticides, herbicides etc.</li> <li>Irrigation</li> </ul>	<ul style="list-style-type: none"> <li>Cultivation methods</li> <li>Behaviour of different soil types</li> <li>Seed evaluation</li> <li>Different types of poisons and usage</li> <li>Irrigation systems</li> </ul>	Complete management programme Soil aspects for particular crop Type and amount of seed needed Crop protection Yield improvement practices	Group leader skills Marketing plan Fertiliser plan Irrigation scheduling Daily management Soil management		

**Layout of the PAT: Crop Production (Continued)**

MANAGEMENT OVERVIEW		PRACTICAL ACTIVITIES			MANAGEMENT TEST	TIME REGISTER
Production planning		Operational Skills (Practical and management)			Application	Experience
		Progression in complexity, content and context				
20%		50%			25%	5%
Grades 10–12		Grade 10	Grade 11	Grade 12		
Organising/Implementing/Execution	<b>(Practical performable)</b> <ul style="list-style-type: none"> <li>• Soil sample</li> <li>• Selection</li> <li>• Identification – pests, diseases, weeds</li> <li>• Record keeping</li> </ul>	Basic management <ul style="list-style-type: none"> <li>• Soil sample</li> <li>• Seed germination test</li> </ul>	Calibration practical <ul style="list-style-type: none"> <li>• Utilise soil sample analysis for fertiliser application</li> <li>• Spraying</li> <li>• Irrigation</li> <li>• Pruning</li> <li>• Identification of pests, diseases</li> </ul> Composition of soils Soil data – Execution of planning actions	<ul style="list-style-type: none"> <li>• Calibration calculations</li> </ul> Product: <ul style="list-style-type: none"> <li>• Harvest</li> <li>• Classification</li> <li>• Grading</li> <li>• Processing</li> <li>• Packaging</li> <li>• Marketing</li> </ul>		<b>Time spent in/on production enterprise (Register signed by learners and supervisor on the site)</b>
Control and checking <ul style="list-style-type: none"> <li>• Challenges and successes</li> </ul>	<b>(Practical performable)</b> <ul style="list-style-type: none"> <li>• Farm evaluation</li> <li>• Plant density</li> </ul>	Daily routine inspection	Crop rotation Irrigation comparison Fertilizer trial Plant density trial	Yield determination Analyse the planning process		

The Practical Assessment Task (PAT) counts 25% of the total promotion mark and should take the form of developing and applying agricultural management skills and the mark allocation should add up to 100 marks. The Practical Assessment Task therefore focuses on the management skills as well as the development and application of skills in the production process in a production-related context.

### Final mark

The final mark of the PAT is linked to these domains:

<b>Management Aspects</b> (Affective domain)	<b>50</b>
<b>Practical Activities</b> (Psychomotor domain and cognitive domain)	<b>50</b>
<b>TOTAL</b>	<b>100</b>

## THE COMPONENTS OF THE PAT FOR AGRICULTURAL MANAGEMENT PRACTICES

### MANAGEMENT OVERVIEW

A production plan which includes the most important practices within a production enterprise is presented in calendar form or as a monthly report. This provides an overall impression of production processes as they are implemented over a period of a year within a production system.

This activity must include proven farming practices which are locally practised and those which the learners would be exposed to. The activity could be a group, pairs or individual activity and would include research and home work.

The assessment tool used for this activity could be a checklist or rubric.

### GRADE 10

The basic production activities that would be included in an annual production plan for a plant production enterprise and an animal production enterprise must be listed. These activities could be described and an indication of a possible timeframe for each activity could be included. This might include some of the following practices:

<b>PLANT PRODUCTION</b>	<b>ANIMAL PRODUCTION</b>
<ul style="list-style-type: none"> <li>• Planning for the planting season</li> <li>• Order fertiliser</li> <li>• Order propagation material/seed</li> <li>• Soil preparation/Mechanisation</li> <li>• Planting</li> <li>• Crop care/Pest and disease control</li> <li>• Control of weeds/herbicide</li> <li>• Fertilisation/Irrigation</li> </ul>	<ul style="list-style-type: none"> <li>• Feed mixing</li> <li>• Reproduction/Pregnancy/ Mating season/AI</li> <li>• Birth/Hatching</li> <li>• Health Care/Immunisation/ Dosage/Dipping/Medication</li> <li>• Castration</li> <li>• Production/Milk/Meat/Fibres/Eggs</li> <li>• Management of animals</li> <li>• Recordkeeping (Tagging)</li> </ul>



**GRADE 11**

An extensive production plan for a specific plant production enterprise and a specific animal production enterprise for a period of 12 months must be presented. This production plan would clearly indicate the enterprise specific management activities which are implemented to get the optimum production outputs for that enterprise. This would include the following practices:

<b>SPECIFIC PLANT PRODUCTION ENTERPRISE</b>	<b>SPECIFIC ANIMAL PRODUCTION ENTERPRISE</b>
<ul style="list-style-type: none"> <li>• Planning for the planting season</li> <li>• Order fertiliser</li> <li>• Order propagation material/seed</li> <li>• Soil preparation/Mechanisation</li> <li>• Planting</li> <li>• Crop care/Pest and disease control</li> <li>• Control of weeds/Herbicide</li> <li>• Fertilisation/Irrigation</li> </ul>	<ul style="list-style-type: none"> <li>• Feed flow programme</li> <li>• Mating season</li> <li>• Reproduction/Pregnancy</li> <li>• Birth/Hatching</li> <li>• Health Care/Immunization/ Dosage/Dipping/Medication</li> <li>• Manipulation of reproduction/ AI/Castration</li> <li>• Production/Milk/Meat/Fibres/Eggs</li> <li>• Handling and management of animals</li> <li>• Recordkeeping/Tagging</li> </ul>

**GRADE 12**

An extensive production plan for a specific plant production enterprise and a specific animal production enterprise that will focus on the following content issues covered in Grade 12:

- Resource management
- Holistic planning/Whole enterprise planning/Strategic enterprise planning
- Financial aspects/Implementation and control of enterprise budget
- Labour management
- Record-keeping/Physical/Financial
- Harvesting/Harvesting procedures
- Grading/Product differentiation/Sorting
- Value adding/Marketing/Distribution
- Agritourism

The issues mentioned above must be presented for a period of 12 months and should include all appropriate practices for the relevant enterprise.

Challenges and successes must be listed. The safety precautions and environmental issues considered. For example, waste management aspects in enterprise specific production processes. PAT must include evidence of how the production-related processes in the different enterprises are managed over a period of a year.

**RELEVANT PRACTICAL TASKS**

This section of the PAT for AMP must be completed under controlled conditions in an operation or practical situation. This part of the PAT focuses on the assessment of an individual learner while performing a practical task in both animal and plant production enterprises.

At least THREE practical activities or tasks in the relevant production enterprises are comprehensively assessed for Grade 10 and 11 learners and TWO practical activities for Grade 12 learners. This part of the PAT assessment will assess the performance of learners while they do these activities. Tasks should be set in real-life settings, for example milking cows, spraying crops, artificial insemination, grafting, inoculation, monitoring diseases and pests, castration, germination %, de-horning, value-adding activities, etc. The learners should know the assessment criteria before they start with each task.

These practical activities are assessed and on-site moderation should be completed where possible. Where on-site moderation is not possible, evidence to support the assessment of the activities should be gathered for the final moderation. This could include pictures and/or video clips of these activities and assessment of these activities. Examples of specific performance assessment activities would include activities like feeding, fertiliser application, branding, planting, inoculation, mechanisation planning, classing, crop-care practices and care of animals. The learner could complete diagrams of apparatus and/or sketch plans used in the different processes.

The assessment of these activities would include a comprehensive checklist or rubric and could be supported with a questionnaire or interview which is completed while performing this activity. The questionnaire and interview could assess the context and application of the learner who is assessed and could be marked with a memorandum.

**GRADE 10**

Assessment of practical activities based on general issues in the production processes of animals and plants as the learners were exposed to.

**GRADE 11**

Assessment of practical activities based on specific issues in the specific production processes of animals and plants to which the learners were exposed.

**GRADE 12**

Assessment of practical activities based on specific issues in the specific agribusiness production processes of animals and plants to which the learners were exposed.

**MANAGEMENT TEST**

The learners are exposed to various case studies or scenarios based on the annual production plan to which they have been exposed. The management test will represent examples of applications from the annual production plan and these questions will be linked to the application of the knowledge.

This activity or task will be completed under controlled conditions as an individual activity. The assessment tool for this activity could include a marking guideline (memorandum), checklist and rubric or a combination of these.

**GRADE 10**

Management test based on general issues in the production processes of animals and plants to which the learners have been exposed.

**GRADE 11**

Management test based on specific issues in the specific production processes of animals and plants to which the learners have been exposed.

**GRADE 12**

Management test based on specific issues in the specific agribusiness production processes of animals and plants to which the learners have been exposed.

**RECORDING OF TIME SPEND IN A PRACTICAL SITUATION OR PRODUCTION ENTERPRISE**

The time that learners spend in a practical situation or at an active production plant should be noted. These records should include time spent while doing tasks, gathering information, observing, evaluating or demonstrating skills while in a practical situation.

A list of the processes or activities to which the learners have been exposed should be included to indicate evidence of exposure to the major production activities that the available enterprises have to offer.

Learners must spend at least 10 hours per term in such a practical situation. The learners must be exposed to the THREE major production enterprises that form part of the PAT. Learners should be assessed on the time spent in these practical situations and on the complexity of their exposure. A checklist must be used for this purpose and the marks adjusted proportionally.

**GRADE 10**

The time must be noted that learners spend getting practical exposure to general animal and plant production enterprises. A list production tasks per animal or plant production enterprise should be included per learner.

**GRADE 11**

The time should be noted that learners spend getting practical exposure in their specific animal and plant production enterprises. A list of at least four production tasks per animal or plant production enterprise should be included per learner.

**GRADE 12**

The time should be noted that learners spend getting practical exposure in their specific animal and plant agribusiness enterprises. A list of at least four production tasks per animal or plant agribusiness enterprise should be included per learner.

These guidelines assist to provide the minimum standard for PAT in AMP. More informal and more complex activities will be to the advantage of learners.

**ADDENDUM A****An example of a rubric that could supplement some PAT assessments**

<b>Criteria/requirement</b>	<b>1</b>	<b>3</b>	<b>5</b>
<b>Responsibility (Leadership)</b> 1	Follow prescribed or verbal instructions with a lot of assistance.  Indicate no sense for safety procedures even with instructions.  Show no or little responsibility towards the work.	Follow written and verbal instructions with limited assistance.  Aware of the need for safety procedures but have difficulty to identify it without guidance.  Show responsibility towards the work.	Follow written and verbal instructions without assistance.  Follow proper safety procedures.  Accept responsibility easy and take leadership during group work.
<b>Initiative (Planning and goal setting)</b> 2	Uncertain on how to proceed.  Need a lot of assistance.  Recognise only noticeable faults in experimental methodology with a lot of assistance.	Offer solutions or explanations for unexpected problems with guidance.  Recognise faults in experimental methodology with assistance	Offer solutions or explanations for unexpected problems.  Ability to recognise problems or to anticipate problems and solve it without assistance.  Indicate faults in experimental method and results.
<b>Technique (Execution and organising)</b> 3	Clumsy and awkward handling of implements, tools, apparatus.  Execute practical activities with difficulty.	Handling implements, tools, apparatus effectively.  Adequate execution of practical procedures.	Methodical and systematic approach to tasks.  Handling of implements, tools, and apparatus with self confidence.  Skilled execution of practical procedures.
<b>Endurance (Leadership and motivation)</b> 4	Practical tasks and written work incomplete.  Somehow not interested in and impatient with the execution of the tasks.  Inclined not to repeat procedures.	Required practical tasks and written work completed with motivation.  Show some interest in execution of tasks.  Willingness to execute repeated procedures with motivation.	Required tasks and written work is complete.  Positive attitude, good motivation.  Willingness to execute repeated procedures.
<b>Quality (Evaluating, control and coordinating)</b> 5	Hasten through practical tasks.  Superficial with less attention on complete product.  Written work inaccurate and poorly submitted.	Proper practical work with satisfactory to good results.  Written work mostly accurate and submitted clearly.	Proper practical work  Evidence of detail to acquire good end results.  Written work is neat, accurate and submitted clearly.