



education

Department of Education
REPUBLIC OF SOUTH AFRICA

AGRICULTURAL MANAGEMENT PRACTICES

GUIDELINES FOR PRACTICAL ASSESSMENT TASK 2009

This guideline consists of 11 pages

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PRACTICAL ASSESSMENT TASK FOR 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:

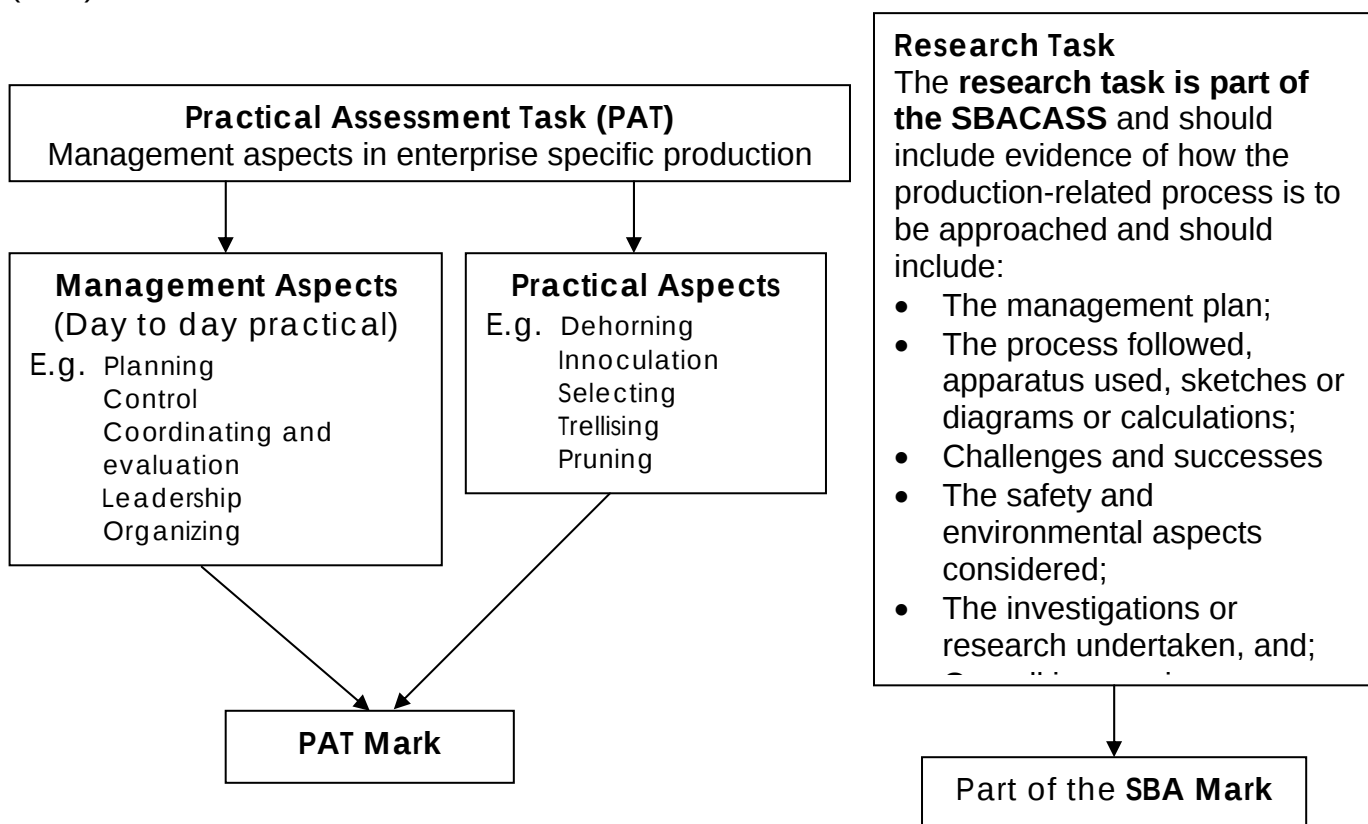
- AGRICULTURE: Agricultural Management Practices, Agricultural Technology
- ARTS: Dance Studies, Design, Dramatic Arts, Music, Visual Arts
- HSS: Life Orientation
- SCIENCES: Computer Applications Technology, Information Technology
- SERVICES: Consumer Studies, Hospitality Studies, Tourism
- TECHNOLOGY: 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 four 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.

The Practical Assessment Task (PAT) for Agricultural Management Practices

The Practical Assessment Task consists of management aspects in enterprise specific production processes, as guided by the research task in the school-based assessment (SBA).



The management aspects include a series of practical activities. These tasks should be completed across the four terms of the grade except in Grade 12 where it should be completed in the first three terms. Tasks should be set in real-life settings, for example milking of cows, artificial insemination, inoculation, feeding and care, castration, de-horning, etc. The learners should know the assessment criteria before they start with each task.

The Practical Assessment Task for Grade 12 is internally set, internally assessed and externally moderated. The PAT is internally set because of the numerous enterprise activities that are prevalent in South African Agricultural schools. The project is completed under controlled conditions.

The Practical Assessment Task (PAT) amounts to 25% of the total promotion mark and should take the form of developing and applying agricultural management skills. Mark allocation should add up to 100 marks and consists of a day by day practical activity (50 marks) and specific practical activities (50 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 are linked to these domains:

Management Aspects (Affective domain)	50
Practical Activities (Psychomotor domain and cognitive domain)	50

TOTAL	100
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The Research task

Information required for the research task in the agricultural enterprise will entail the following and should be submitted in the following sequence:

1. Different processes involved when conducting the various practical activities, e.g. feeding, branding, inoculation, classing and care of animals. The learner must also provide sketches and diagrams of all the practical activities carried out and mention apparatus that is used in the different processes.
2. The safety measures and environmental issues should be considered, for example, how to remove waste products to prevent pollution.
3. Challenges and successes
4. In the Production programme, you must provide the necessary management aspects of the related agricultural enterprise in an organized timeline. Supporting documents need to be attached (e.g. viability study).
5. What sources, e.g. books, magazines and other resource materials did you consult before doing the practical activity
6. Overall impression

EXAMPLE OF A PRACTICAL ASSESSMENT TASK (For the learner)

You are responsible to work in the feedlot from _____ to _____.
You will also be responsible to do TWO practicals per term in the feedlot. These tasks should be finished by the third term.

You will be assessed on the following two aspects:

1. Management aspects (Day to day practical activities) that include planning, leadership, coordinating, execution and organizing and control. In a feedlot any of the following activities or series of activities could be done:

Transport of animals
Mixing of feeds
Classing of animals
Handling of animals
Management of feed and water
Record-keeping
Cleaning of the feedlot (biosecurity)

These activities will assess responsibility, initiative, perseverance and service quality, etc.

2. Practical activities like:

- Dehorning
- Immunization
- The application of growth hormones
- Branding and identification of cattle
- Controlling of external parasites
- Controlling of internal parasites

Also address the **psychomotor (skills)** and **cognitive (knowledge)** domains. The practical activities enable you to develop the required skills.

1 Management Aspects (Day to day practical activities) can then be assessed as follows:

Criteria/ Requirement	0	1	2	3	4	5
Responsibility (Leadership)	Follows written or verbal instructions with a lot of help. Shows little regard for safety procedures, even when told. Some responsibility for the work.		Follows written or verbal instructions with a little help. Aware of the need for safety procedures but has difficulty recognizing them without guidance. Shows responsibility towards the work.		Follows written or verbal instructions without help. Carries out appropriate safety procedures. Assumes responsibility easily, leads in group work.	
Initiative (Planning)	Uncertain of how to proceed, requires considerable help. Recognizes only the most obvious errors in experimental method after considerable guidance.		Offers solutions or explanations to unexpected problems after seeking advice. Solves problems with help. Recognizes faults in the experimental methods given some pointers.		Offers solutions or explanations to unexpected problems. Recognition of and ability to anticipate, problems Solve problems without help. Comments on imperfections of experimental method or results.	
Technique (execution and organizing)	Handles tools/apparatus clumsily. Has difficulty carrying out practical procedures.		Handles tools/apparatus effectively. Carries out practical procedures adequately.		Methodical and systematic approach to tasks. Handles tools/apparatus skillfully and confidently. Carries out practical procedures with dexterity.	
Perseverance (leadership and motivation)	Practical tasks and written work incomplete. Somewhat disinterested/impatient when carrying out work and disinclined to repeat procedures.		The required practical tasks and written work completed with a little encouragement.		All the required practical tasks and attendant written work completed. Attitude positive and well motivated. Willing to carry out repetitive procedures.	
Quality (Evaluating, control and coordinating)	Practical work rushed, superficial and showing little concern for the finished product. Written work inaccurate and poorly presented.		Practical work thorough for the part producing a satisfactory to good result. Written work mostly accurate and clearly presented.		Practical work thorough, evident attendance to detail producing a very good final result. Written work accurate with regard for clear, neat presentation.	

2. **Practical could be assessed using the same rubric that is used for Management Aspects (above) as explained below in Example A or any appropriate rubric that measures the required outcomes/skills (Example B)**

Example A

PRACTICAL 1: IDENTIFY THE DIFFERENT HORIZONS IN A SOIL SAMPLE

1. Get a spade and look for an area in the garden of 2 m².
2. Dig a vertical straight hole of 1 m deep.
3. Loose soil and stone particles should be removed so that the layers of the horizon are easily seen.
4. Identify the differences in layers using the following features:
 - i Colour
 - ii Stone (rock) particles
 - iii Humus (organic matter)
5. Make a labelled drawing of the soil profile.

ASSESSMENT CRITERIA FOR SOIL PROFILE

Responsibility:

- Follow instructions;
- Awareness of safety procedures;
- Correct use and handling of implements;
- Implements cleaned and put away after use.

Initiative:

- Decision is made as to where profile is dug
- Identification of layers by a specific colour, stone and humus content
- Solution offered to problem of digging like watering soil the previous day to make it soft for digging.

Technique:

- Use of tools

Perseverance:

- Completion of task

Quality:

- Clean vertical profile dug to required depth
- Neat presentation of profile drawing made
- Profile drawing representative of actual profile dug

This could be an appropriate exercise to test **responsibility**, **initiative** and **quality**.

PRACTICAL 2: TRANSPLANTING SEEDLINGS

Instructions:

1. Prepare soil for the planting of seedlings.
2. From the seedlings that have grown, select the strongest to transplant.
3. With a hand spade, gently remove the seedlings from seed tray.
4. Separate them, being careful not to damage their roots as you do so.
5. Make a hole in the soil and place the seedling in it. Make sure that the roots are not twisted and are in the soil.
6. Fill in the hole with soil and firm around.
7. Measure the correct distance for the next plant and repeat the process.
8. When you have planted them all, water and mark the area of your practical area allocated.

ASSESSMENT CRITERIA FOR TRANSPLANTING SEEDLINGS**Responsibility**

- Carries out task without help
- Correct preparation of soil

Initiative:

- Spaces the plants appropriately
- Selection of correct tools

Technique

- Makes seedling holes correctly
- Places seedlings at correct depth
- Fills seedling holes correctly
- Waters seedlings correctly

Perseverance

- Completes transplanting of all the required seedlings
- Carries out correct procedure throughout exercise

Quality:

- Appearance of final work
- Neatness of planting
- Rows in straight lines
- Area marked

This could be an appropriate exercise to **test technique, perseverance and quality.**

Example B**ASSESSMENT TOOL FOR DEHORNING AND HOT BRANDING OF FEEDLOT CATTLE**

				Possible mark	Mark Obtained	Name and signature of Assessor Date				
1. Handling of animals				2						
2		0 - 1								
Correct handling and no noise		Incorrect handling and noise								
2.Dehorning of cattle				9						
7-9		5-6					3-4		1 - 2	
Correct clipping of stubs, correct temperature, dehorn iron placed on the bud of the horn for 3 seconds, caustic solution is put on, animal is handled with care and secured.		Correct clipping of stubs, correct temperature, dehorn iron placed on the bud of the horn for less than 3 seconds and animal is handled with care.					Correct clipping of stubs, correct temperature, dehorn iron placed on the bud of the horn for less than 3 seconds and animal is not handled with care and is not secured properly.		Incorrect clipping of stubs, correct temperature, dehorn iron is placed on the bud of the horn for less than 3 seconds and animal is not handled with care and is not secured properly.	
3.Branding of cattle				9						
7-9		5-6					3-4		1 - 2	
Correct temperature of branding iron, time of burn not too long, correct formation and spacing of burn Correct aftercare is given.		Correct temperature of branding iron, time of burn is quite long, correct formation and spacing of burn and aftercare is given.					Correct temperature of branding iron, time of burn is quite long. Incorrect formation or incorrect spacing of burn and little or no aftercare is given.		Incorrect temperature of branding iron, time of burn is too long, Incorrect formation or incorrect spacing of burn, and no aftercare is given.	
Total				20						
Convert to										

ASSESSMENT TOOL FOR IMMUNIZATION AND IMPLANTING GROWTH HORMONES IN FEEDLOT CATTLE

				Possible mark	Mark Obtained	Name and signature of Assessor Date
1. Handling of animals				2		
2		0 - 1				
Correct handling and no noise		Incorrect handling and noise				
2.Immunization of feedlot animals				9		
7-9	5-6	3-4	1 - 2			
Identify the disease correctly and apply the correct immunization programme. Inject the correct dosage into the correct vein by using the correct method of injection.	Identify the disease correctly and apply the correct immunization programme. Inject the correct dosage into the correct vein but did not use the correct method of injection.	Identify the disease correctly and apply the correct immunization programme. Inject the correct dosage into the wrong vein by using an incorrect method of injection.	Cannot identify the disease correctly. Cannot inject the correct dosage into the correct vein.			
3.Implanting growth hormones into feedlot animals				9		
7-9	5-6	3-4	1 - 2			
Correct preparation of equipment that ensures that the apparatus is sterile and clean. Animal is correctly prepared for inserting the hormones. Correct implanting method is used. Animals are not subjected to stress and unnecessary injury.	Correct preparation of equipment ensures that the apparatus is sterile and clean. Animal is correctly prepared for inserting the hormones. Incorrect implanting method is used. Animals are not subjected to stress and unnecessary injury.	Correct preparation of equipment ensures that the apparatus is sterile and clean. Animal is correctly prepared for inserting the hormones. Incorrect implanting method is used. Animals are subjected to stress that causes unnecessary injury.	Incorrect preparation of equipment. Apparatus is not sterile and clean. Animal is incorrectly prepared for inserting the hormones. Animals are subjected to stress and injury. Incorrect implanting method is used.			
Total				20		
Convert to						