

AGRICULTURAL RESEARCH COUNCIL

BRIEFING TO THE PORTFOLIO COMMITTEE ON AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT

Feedback on ARC Q3 AND Q4 Performance (FY 2022/2023)

(Performance Information and Financials)

June 2023



CONTENT OVERVIEW

- Overview of the Agricultural Research Council (ARC)
- Quarter 3 and Quarter 4 FY2023 highlights
- Quarterly breakdown (Performance Information & Finance) Quarter 3 and Quarter 4 (FY 2023)
- ❖ Progress on the ARC Control and Efficiencies Improvement Plan [ACE.IP] as of 31 March 2023
- Status update on the Construction of the FMD Vaccine Production Facility

ARC MANDATE, VISION & MISSION

MANDATE

In terms of the Agricultural Research Act, to promote the agricultural and related sectors through **Research**, **Development and Technology Transfer**

VISION

Excellence in research and innovation for sustainable agricultural systems and economic development

MISSION

To conduct research, develop partnerships and human capital, to foster innovation for a sustainable agriculture sector

VALUES

I CAIRE

- INTEGRITY

We conduct our business in a transparent, honest, truthful, consistent and ethical manner to ensure we foster trust among our employees and stakeholders.

C - COMMITMENT

We commit ourselves to live the values of the ARC

A - ACCOUNTABILITY

We honour our commitments towards our employees and stakeholders in a responsible and reliable manner, taking ownership of our work and decisions.

- INNOVATION

We conduct our business in a way that fosters innovation to improve the growth of the organisation and the agricultural sector.

R - RESPECT

We treat our colleagues and stakeholders with respect and dignity in an equitable manner whilst embracing diversity.

E - EXCELLENCE

We conduct our work in an efficient, effective, professional manner to ensure we create highest quality and value.



SCIENCE IN ARC FOR THE AGRICULTURE ECONOMY

SCIENCE COUNCIL

- Innovation in science
- Basic/fundamental research
- Applied research (technologies)
- Intellectual assets
- Skilled scientists & engineers
- ■Volume & quality publications
- Scientist ratings
- Number of PhDs
- Number of doctoral fellows
- Number of postdoc fellows
- Scientific awards

AGRICULTURE DEVELOPMENT

- o Economic link to Innovation
- Applied research
- oTechnology Transfer/dissemination
- oIntellectual Asset Use
- oAgricultural Production & productivity
- oFood Security hunger
- oEnvironmental Sustainability
- oImport Substitution
- Export Promotion
- oAgrarian Transformation
- New products (vaccines, cultivars etc.)

MEDIUM TERM STRATEGIC FOCUS PRIORITIES FOR 2019 – 2024

MTSF PRIORITIES FOR ARC:

- a) Priority 1: A Capable, Ethical and Developmental
 State
- b) Priority 2: Economic Transformation and Job
 Creation
- c) Priority 3: Education, Skills and Health
- d) Priority 5: Spatial Integration, Human Settlements and Local Government
- e) Priority 7: A better Africa and World

Cross Cutting Focus Areas:

- > Women
- > Youth
- > People with Disabilities
- > Climate Change

ARC MTSF ALIGNED OUTCOMES FOR 2019 - 2024

- 1. Increased agricultural production and productivity
- 2. Sustainable ecosystems and natural resources
- 3. Improved nutritional value, quality and safety of agricultural products
- 4. A skilled, capable agriculture sector with innovation, knowledge and technologies
- 5. Enhanced resilience of agriculture
- 6. A high performance and sustainable organisation



ARC Inter Campus Research Conference

The ARC held the first Inter Campus Research Conference, themed "The heat is on: The weird and wonderful research in ARC" to showcase the research done by various teams in campuses to enable ARC staff (core and support) to have a better understanding of the scope and depth of research carried out in ARC, to facilitate collaboration.







First detection of alfalfa mosaic virus on cannabis in South Africa







The ARC-Plant Health and Protection is conducting a survey of viruses in cannabis in South Africa to establish viruses currently present in the fledgling industry. This is towards advising farmers on appropriate virus management measures. Thus far, samples have been collected from indoor medicinal cannabis facilities and outdoor hemp fields in KwaZulu Natal, Limpopo and North West.

This is the first report of the virus in cannabis in South Africa.

Tortoise beetle successfully controls invasive Mexican sunflower



The ARC-PHP collected and imported the defoliating tortoise beetle, Physonota maculiventris, from Mexico as a biological control agent against the invasive Mexican sunflower, Tithonia diversifolia. Following extensive quarantine evaluation at ARC-PHP Roodeplaat, permission to release the beetle agent was obtained from DALRRD in August 2018.

Further releases of many thousands of beetles were made at additional sites during summer of 2022-2023. By autumn 2023, it was found to be spreading far beyond the original release sites, reaching densities of well over 50/m2 in KZN.

The TELA Maize Project



The TELA Maize Project is a public-private partnership that is working towards initiating commercialization of transgenic drought-tolerant and insect-protected maize varieties to enhance food security in Sub-Saharan Africa.

The ARC participated in field visits for the evaluation of TELA Bt Maize Multi-location Value for Cultivation and Use (VCU) Trials at 4 sites (Chokwe, Umbeluzi, Tete and Chimoio) in Mozambique from 14 to 18 November 2022. Three hybrids (WE1101B, WE7202B and WE7210B performed consistently well and were recommended for release. Commercialisation of GM maize in Mozambique will open doors for South African maize exports.





Enhancement of Facilitation Skills at (Mpumalanga)



Thirty-five participants were trained on "Facilitate leadership & group dynamics for effective extension & advisory services" programme. The aim of the programme is to equip participants with the tools to facilitate primary agriculture production and implementation of the extension intervention plan.

Registration category 1 CPD Activities at SACNASP

Activity title: Facilitate leadership & group dynamics for effective

extension & advisory services

Validation number: 2019-0380-000689

Potato enterprise development (North West)



Eight farmers graduated from the ARC- North West Department of Agriculture and Rural Development (NWDARD) potato enterprise development with yield ranging from 14.88 t/ha to 46.94 t/ha





Equipping officials for climate change response



Project objectives

- Capacitate Extension Practitioners on Climate change response
- FastTrack CSA New technology transfer.
- Improving Agricultural Practitioners' capacity to maximize climate smart agricultural production
- Training Scope
- Agrometeorological Applications
- Natural Resources Management (Soil and Water)
- Water resources and Wetlands
- Climate Smart Livestock Production
- Climate Smart Subtropical Fruits and Vegetable Production





Think SADC – e-learning programme







TEAM3C Project Launch Agenda

GIZ: "Think SADC – e-learning programme for Agricultural Management of natural resources via climate-smart agricultural technologies in Context of Climate Change": TEAM3C project Date: 27th January 2023

Login & Connect: 10.00am

Duration: 10.30 to 12.00pm

Location: MS Teams

Facilitator: Mr. Akhona Damane

1. THE PURPOSE OF THE MEETING

10.30am - 10.35am | Speaker: Mr. Akhona Damane

- o Opening and welcoming of attendees
- A brief description of the purpose of this meeting: To launch the project and call for cooperation and support

2. INTRODUCTION OF PROJECT PARTNERS

10.35am - 11:05am | Speakers: ARC; UNESWA; ZCA-MONZE

- o Introduction of SADC Country partner organizations and what the partnership means to each organization:
 - · Agricultural Research Council Dr Petronella Chaminuka Acting GE Impact & Partnerships
 - University of Eswatini Dr Sizwe Mabaso HoD Geography, Environmental Sci & Planning
 - Zambia Agricultural College-Monze Mr Mwansa Misumbi , Principal

The ARC launched the "Think SADC – e-learning programme" for Agricultural Management of natural resources via climate-smart agricultural technologies in the Context of Climate Change "TEAM3C" in collaboration with the University of Eswatini and Zambia Agricultural College-Monze, funded by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany.

The project seeks to develop a regional training programme for SADC that promotes knowledge exchange and cooperation on Climate—Smart Agriculture (CSA) and climate sensitive Natural Resource Management (NRM).

Agricultural development support for Internally Displaced Persons (IDPs) in Cabo Delgado province of Mozambique.

Through the African Renaissance Fund (ARF), DIRCO appointed the ARC to implement the "Agricultural development support for Internally Displaced Persons (IDPs) in Cabo Delgado province of Mozambique in the context of SUSTENTA farmer support project".

The project aims to enhance food and nutrition security through utilisation of new or improved technologies (e.g. improved seeds and adapted chicken genetics) and climate-resilient farming practices.









The Launch of "Transforming food Systems and Agriculture" (TSARA) and 1st AGM

The ARC hosted the launch and first general assembly of the "Transforming food Systems and Agriculture through Research in Partnership with Africa (TSARA)" at the World Science Forum in Cape Town.







Africa-Europe Science and Innovation Forum (AERAP)





ARC participated in the Africa-Europe Science and Innovation Forum (AERAP) hosted jointly by the Department of Science and Innovation in the South African Embassy in Brussels

The 2022 ARC National Beef Performers Awards.

ARC National Platinum Bull Awards (sponsored by GMP Basic). The seven bulls awarded the title this year are: Pierre-André Cronje's Afrikaner (MC 20 0666), Daan Viljoen's Bonsmara (EHE 20 0188), Nick Serfontein's Bonsmara (NFS 20 0063), Gerrie Oelofse's Boran (BG 20 0097), Alpheus Denga's Boran (DE 20 0719), Johan Fourie's Limousin (YF 20 0001) and Desmond Robertson's Santa Gertrudis (SS 20 0147).















ARC National KyD Province of the Year Award (proudly sponsored by Molatek). The following provinces take silver, gold and platinum: Silver – Eastern Cape, Gold – North-West and Platinum – KwaZulu-Natal

ARC National KyD Beef Farmer of the Year Award (sponsored for the first time by Stockfarm (Plaas Media)). The National Emerging Beef Farmer of the Year Award goes to Selina Hlabedi of Bakwa-Hlabedi in Farming, in Gauteng. Selina farms with Bonsmara cattle.



ARC National Mentor of the Year Award (sponsored by Molatek for several years now). 2022 saw not just one mentor, but two mentors taking the title. They are: Mpho Munyai from the Magaliesburg region and Gert Brits from Delareyville.





ARC National Special Performance Test Class Awards (sponsored for the first time by Plaas Media). This award saw a total of 13 bulls receiving accolades in this category in 2022: Afrikaner - Jannie Visagie's JEV 20 0151, Angus (black) - Stefan Terblanche's FG 200782, Boran - Zippo Lamprecht's ZIP 20 0041, Braford - Gert van der Merwe and Johan de Jager's GM 20 0043, Brahman - Justin de Bruyn's H2O 20 0013, Brangus - Myburgh and Tewie Wessel's WW2 20 0031, Braunvieh - Erik de Klerk's DEK 20 0053, Charolais - Dami Stemmett's DS 20 0511, Hereford - Danie van Breda's DVB 200047, Limousin - Johan Fourie's YF 20 0090, Nguni - Hannes Eksteen's EX 20 0251, Santa Gertrudis - Desmond Robertson's SS 20 0146 and Sussex - Erina and Carlé Cillié's CC 20 0028.

The aim of the awards is to recognise the outstanding achievements of beef producers across all production sectors in South Africa. A total of 13 bulls received accolades in the Special Performance Test Class category (running for over four decades), all of which originate from different breeds.

2022 ARC National Master Dairyman Awards

The ARC promotes the adoption of improved livestock production practices by recognizing farmers that have embraced technological innovations. South Africa's top commercial and smallholder dairy farmers were recognised for outstanding performances in dairy farming.







Mitigating against the impacts of Load shedding





The ARC made investment in solar projects at Infruitec Campus. The post harvest cold rooms are fitted with 224 solar panels housed on the carport, generating 75kva and the Nietvoorbij cellar fitted with 16 solar panels which generates 25kva and provides power to the cold-rooms/freezers in the building.

APPLICATION FOR EXEMPTION FROM ALL ESKOM/Cot ELECTRICITY
LOADSHEDDING SCHEDULES: AGRICULTURAL RESEARCH COUNCIL ONDERSTEPOORT VETERINARY INSTITUTE (NKP NO. 1039700) AND
TRANSBOUNDARY ANIMAL DISEASES FACILITY (NKP NO. 0140100).

Due to the nature of the especially dangerous pathogens (EDPs) used for research work at the Onderspoort Veterinary Institute (OVI) and Transboundary Animal Diseases (TADs) campuses, the ARC has applied to be exempted from load shedding. The two sites were declared National Key Points.

Q3 PERFORMANCE INFORMATION

- Overall, for 2022/23 FY 50* Quarterly REPORTABLE Performance Information Output Indicators & Targets
- For Quarter 3: 45 * KPIs with Targets to report on, as 5 Output Indicators does not have a target for Quarter 3
- 1st Analysis of Quarter 3: 2022/23 Performance Information:

*Excluding Annual PI from Outcome 6

ANALYSIS CRITERIA	AUDITED ACTUALS								
Q3 PI Targets met	24 (53%)								
Q3 PI Targets not met	21 (47%)								
ANALYSIS CRITERIA	AUDITED ACTUALS								
vs Q3 ACTUALS 2021/22									
Q3 PI Targets met	23 (51%)								
Q3 PI Targets not met	21 (41%)								
	vs Q3 ACTUALS 2020/21								
Q3 PI Targets met	23 (50%)								
Q3 PI Targets not met	23 (50%)								

• 2nd Analysis of Quarter 3: 2022/23 Performance Information

ANALYSIS	OUTCOME 1		OUTCOME 2		OUTCOME 3			OUTCOME 4			OUTCOME 5			OUTCOME 6				
CRITERIA	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
Total PI Q Targets	5	4	6	7	9	8	4	5	6	15	14	16	5	5	8	1	1	1
Q PI Targets met	2	2	1	5	8	4	3	3	4	11	9	10	2	3	4	1	0	1
Q PI Targets not met	3	2	5	2	1	4	1	2	2	4	5	6	3	2	4	0	1	0

Q3 SERVICE DELIVERY DEMOGRAPHICS

OUTCOME	OUTPUT	INDICATOR	PROGRES S	YOUTH	WOMEN	PW D	DISTRICT
	Skills development	Number of people trained *	157	77	67	0	GautengMpumalangaKwaZulu NatalLimpopoInternational
4. A skilled and capable agriculture sector through innovation, knowledge	Smallholder farmer	Number of farmers trained **	704	334	394	0	 Klerksdorp, North West Taung, North West Makapanstad, North-West Ganyesa, North West Potchefstroom North West Ladysmith, Uthukela District, KwaZulu-Natal Noqhekwana, Xurana, Nkanunu and Bulungula Eastern Cape
and technologies	supported	Number of smallholder farmers participating in KyD	532	42	24	N/A	 Gauteng KwaZulu Natal Mpumalanga North West Eastern Cape Limpopo Free State
	Farmer support	Number of farmers supported	308	23	243	3	N/A

^{*}People, including extension agents, interns, post-doctoral, and experiential learners.

^{**} Farmers who have been trained (In person or online).

Q4 PERFORMANCE INFORMATION

- Overall, for 2022/23 FY 50* Quarterly REPORTABLE Performance Information Output Indicators & Targets
- For Quarter 4: 47 * KPIs with Targets to report on, as 3 Output Indicators
- 1st Analysis of Quarter 4: 2022/23 Performance Information:

*Excluding Annual PI from Outcome 6

ANALYSIS CRITERIA	Q1 AUDITED ACTUALS	Q2 AUDITED ACTUALS	Q3 AUDITED ACTUALS	Q4 REVIEWED ACTUALS							
PI Targets met	24 (65%)	26 (68%)	24 (53%)	37 (79%) *							
PI Targets not met	13 (35%)	12 (32%)	21 (47%)	10 (21%) *							
ANALYSIS CRITERIA AUDITED ACTUALS											
vs ACTUALS 2021/22											
PI Targets met	23 (72%)	29 (73%)	23 (51%)	33 (65%)							
PI Targets not met	9 (28%)	11 (27%)	21 (49%)	18 (35%)							
	vs ACTUALS 2020/21										
PI Targets met	14 (40%)	14 (40%)	23 (50%)	31 (58%)							
PI Targets not met	21 (60%)	21 (60%)	23 50%)	22 (42%)							

^{*}Excluding PI from Outcome 6 and those with actuals but without target for Q4 reporting

2nd Analysis of Quarter 4: 2022/23 Performance Information

ANALYSIS CRITERIA	OUTCOME 1			OUTCOME 2			OUTCOME 3			OUTCOME 4			OUTCOME 5				OUTCOME 6				
ANALI SIS CITIERIA	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Annual*
Total PI Q Targets	5	4	6	6	7	9	8	8	4	5	6	8	15	14	16	16	5	5	8	9	22
Q PI Targets met	2	2	1	4	5	8	4	6	3	3	4	7	11	9	10	12	2	3	4	8	12
Q PI Targets not met	3	2	5	2	2	1	4	2	1	2	2	1	4	5	6	4	3	2	4	1	10

^{*}Excluding six (7) PI from finance & SCM

Q4 SERVICE DELIVERY DEMOGRAPHICS

ОИТСОМЕ	ОИТРИТ	INDICATOR	PROGRESS	YOUTH	WOMEN	PWD	DISTRICT	
	Skills development	Number of people trained *	157	77	67	0	GautengMpumalangaKwaZulu NatalLimpopoInternational	
4. A skilled and capable agriculture sector through innovation, knowledge	Smallholder farmer	Number of farmers trained **	704	334	394	0	 Klerksdorp, North West Taung, North West Makapanstad, North-West Ganyesa, North West Potchefstroom North West Ladysmith, Uthukela District, KwaZulu-Natal Noqhekwana, Xurana, Nkanunu and Bulungula Eastern Cape 	
and technologies	supported	Number of smallholder farmers participating in KyD	532	42	24	N/A	 Gauteng KwaZulu Natal Mpumalanga North West Eastern Cape Limpopo Free State 	
	Farmer support	Number of farmers supported	308	23	243	3	N/A	

^{*}People, including extension agents, interns, post-doctoral, and experiential learners.
** Farmers who have been trained (In person or online).

ARC FINANCIAL RESULTS FY2023

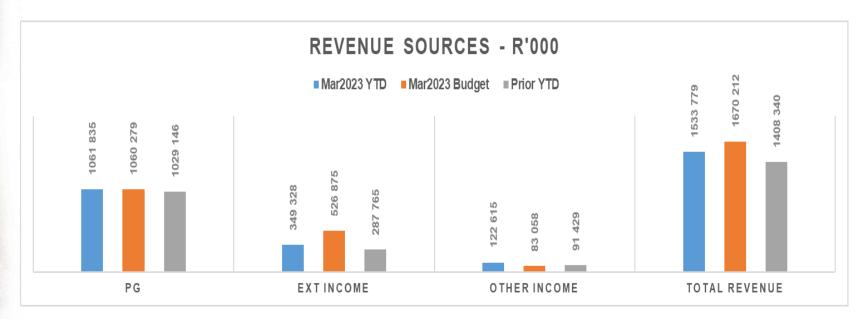
	Q4 YTD	Budget YTD	Variance (R)	Variance (%)
External Income	349 328	526 875	(177 547)	-34%
Other Income	122 615	83 058	39 557	48%
Personnel Costs	777 400	758 591	18 809	2%
Operating Costs	469 655	644 517	(174 862)	-27%
Operating Surplus	219 273	201 037	18 236	9%

- External income was 34% below budget (R177 547 000)
- Other Income 48% was above budget (R39 557 000)
- There was delayed spending on operating costs of 27% (R174 862 000)
- There over expenditure of 2% on personnel costs (18 809 000)
- Cash reserves / position R1.2bn
- Current Assets exceeds Current Liabilities (R941m)
- Solvency and Liquidity assessment satisfactory

ARC FINANCIAL RESULTS YTD-Q4 FY2023

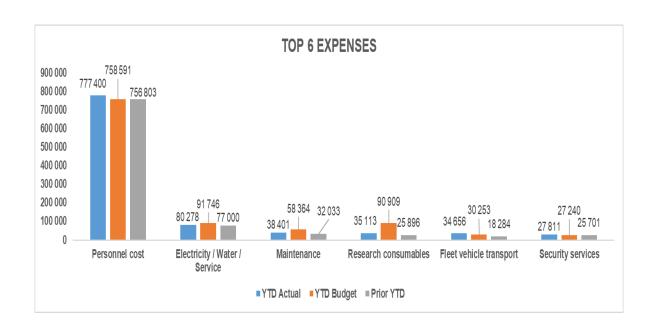
	QUARTERLY STATEMENT OF FINANCIAL PERFORMANCE for the year ended 2022/23	Quarter 1 Actuals R'000	Quarter 2 Actuals R'000	Quarter 3 Actuals R'000	Quarter 4 Actuals R'000	Year-end Actual 2022/23 R'000	Year-end Budget 2022/23 R'000
	Parliamentary Grant	265 083	265 146	265 447	266 159	1 061 835	1 060 279
	Parliamentary Grant - Operational	237 615	237 615	237 615	237 614	950 458	950 459
	Parliamentary Grant - Capex	27 455	27 455	27 455	27 455	109 820	109 820
	Parliamentary Grant - Ringfenced FMD	13	77	377	1 089	1 557	0
	External Income	37 140	53 159	75 618	183 412	349 328	322 002
	Advisory Services	(3 061)	8 820	13 131	24 296	43 186	43 910
ME A	Diagnostic Services	7 886	16 953	16 482	49 176	90 497	95 630
	Farm Products	1 296	2 420	1 705	(2 954)	2 468	21 499
2	Royalties	24 246	(95)	(1 201)	24 533	47 483	45 291 6 704
ß.	Research Material Research Services	287 6 485	622 24 439	148 45 352	1 408 86 953	2 465 163 229	6 721 108 951
S,	Research Services	0 403	24.433	45 552	00 353	103 223	100 331
r	Other Income	17 531	30 741	27 317	47 025	122 615	69 856
	Total Revenue	319 754	349 047	368 382	496 595	1 533 779	1 <mark>45</mark> 2 137
	Expenses	280 494	310 321	349 629	374 060	1 314 505	1 259 441
	Personnel	186 832	184 350	214 824	191 394	777 400	755 222
	Operating expenses	76 291	108 534	119 031	165 799	469 655	452 793
	Depreciation	17 371	17 435	15 774	16 861	67 441	51 423
P.S.	Finance Costs	0	3	0	7	9	3
	Surplus/(Deficit) for the period	39 260	38 726	18 753	122 535	219 273	192 695
	Operating Surplus / (deficit) for the period	11 805	11 271	(8 702)	(14 264)	109	82 875

REVENUE



- Operational PG in line with the Allocation Letter.
- External Income: 34% below YTD budget. Shortfall of R178m. 21% increase compared to Prior year.
- Other Income achieved to date of R123m (48% favourable variance), and 48% increase as compared to Prior year.

EXPENDITURE



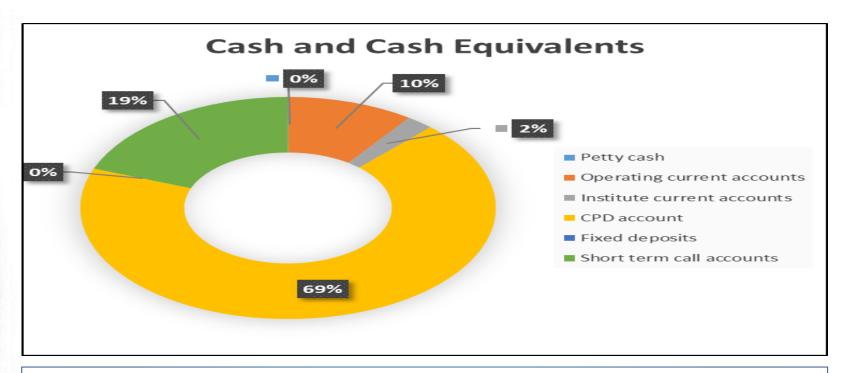
Top 6 expenses account for R994m; 6% below YTD budget and 6% above prior year

INCOME RECEIVED IN ADVANCE



■ The Income received in advance balance was R208 million

CASH POSITION



Cash and Cash Equivalents as at 31 March 2023 was R1.2 billion; 69% of which is invested at the CPD (which includes funds ring-fenced for the FMD Vaccine Production Facility Project.

AUDIT IMPROVEMENT PLAN - QUALIFICATION (PLAN IS DEVELOPED FOR APPROVAL 15 SEP)

Property, plant and equipment. Physical verification for existence and completeness and Land ownership.

Irregular expenditure. Accuracy of the irregular expenditure amount and consequence management.

Contingent Liabilities. Scope limitation for estimates.

FMD STATUS UPDATE (PROCESS)



- The ARC undertook to develop a process for the production of FMD vaccines for use in Southern Africa.
- These efforts have culminated in establishment of technical expertise and infrastructure to consistently produce FMD antigens at 20-litre scale using suspension production technologies. This is sufficient to produce 20 000 doses.
- The FMD vaccine was registered on 20th May 2022, as a stock remedy under Act 36 of 1947. The registration certificate is valid for/renewable after 3 years.
- The ARC will be able to use the vaccine as part of DALRRD's FMD prevention programme. DALRRD requested the ARC to provide FMD vaccines to be deployed on farms or feedlots affected by the current outbreaks of FMD in Free State, Moumalanga, North West and Gauteng.

ONDERSTEPOORT FMD VACCINE

TRIVALENT

SAT 1: 2 & 3 STRAINS

FOR VETERINARY USE ONLY

Reg. No. G 1944 Act 36/1947

Montanide™ ISA 206 VG adjuvanted vaccine for intramuscular immunisation of cattle, sheep, goats and pigs against Foot and Mouth Disease.

CATTLE DOSAGE: 2 ml (Total doses: 50 doses) SMALL STOCK DOSAGE: 1 ml (Total doses: 100 doses)

Batch No:

Expiry date:

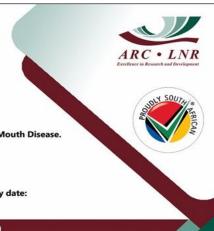
100 ml

Net volume

Formulation date:

Store: 4 - 10 °C & Shake before use

Onderstepoort Veterinary Research, 100 Old Soutpan Road, Onderstepoort, 0110



FMD STATUS UPDATE (PROCESS)

- ❖ The ARC has completed the formulation of 20 000 doses of pentavalent FMD vaccines using the stockpiled antigen for supply to the Department to be deployed at its discretion.
- ❖ Due to the recurrent FMD outbreaks in the country and the rest of the SADC region, the ARC increased production from the current 20-litre to 200-litre scale. Permission was granted to proceed with the procurement of the necessary infrastructure to produce the vaccine at 200-litre scale, which will be sufficient to produce 200 000 doses per annum.

FMD STATUS UPDATE (FACILITY)

- ❖ A dedicated project manager to oversee the construction phase of the project has been appointed.
- ❖ Progress has been recorded against various building preparatory measures like management of land rights including necessary zoning, environmental, infrastructural/external services, legal requirements in relation to such land rights (Obtaining the title deed, Surveyor General diagram, municipal account approval, etc.)
- The process of appointing the necessary service providers to design various aspects of the project (Process Engineer, Architectural Designer, Mechanical Engineers, Quantity Surveyors, has been finalised. As a result, Phase I has been concluded and quantities are now being finalised.
- This built environment team will assist in finalising the building plans and oversee various stages of the FMD factory construction.
- ❖ The ARC has also initiated bilateral collaboration with the CSIR on advisory services and bringing existing norms and standards of the clinical and diagnostic building on leading technologies within the industry.

THANK YOU

www.arc.agric.za

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