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AGRICULTURAL RESEARCH COUNCIL

ANNUAL REPORT

2019/20

ARC MANDATE, VISION & MISSION

MANDATE:

In terms of the Agricultural Research Act, 1990 (Act No 96 of 1990).

To promote the agricultural and related sectors through:

- Research;
- Development; and
- Technology Transfer

VISION:

Excellence in agricultural research and development

MISSION:

The Agricultural Research Council is a premier science institution that conducts research with partners, develops human capital and fosters innovation to support and develop the agriculture sector

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ARC CONTRIBUTION TO GOVERNMENT PRIORITIES & OUTCOMES (& SDGs)

1. Contributing towards attainment of agricultural yields through improved agricultural production, productivity and biosecurity;

2. Enabling the country to respond and adapt to climate change concerns (land, energy, biotic and abiotic stresses), including through sustainable natural resource utilisation;

3. Contributing towards agricultural development, particularly smallholder farmer development;

4. Employment and Job creation across the full agricultural and agro-processing value chain; and

5. Improved productivity, production, competitiveness and sustainability of animal and cropbased agriculture.

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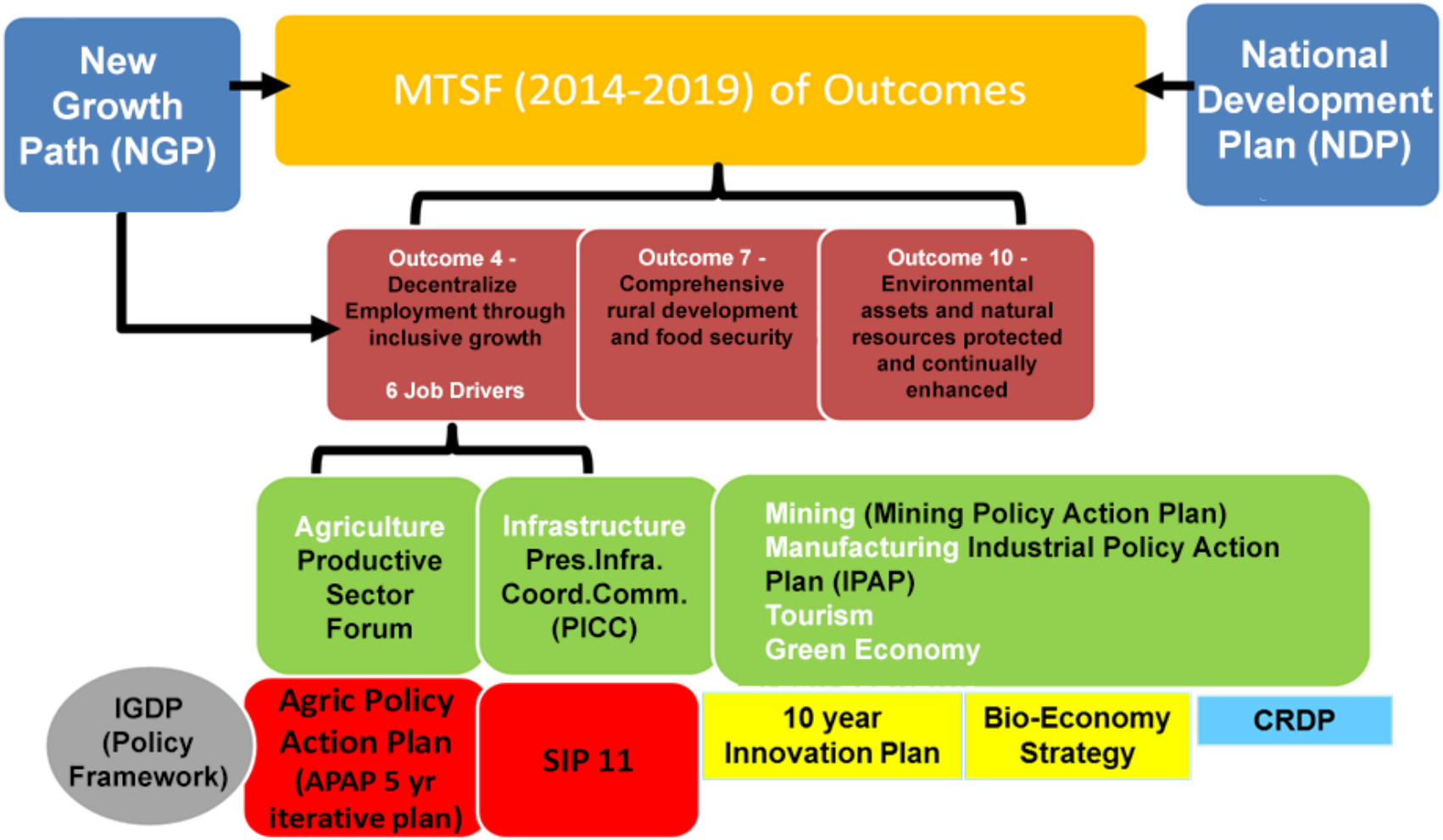
ARC ALIGNMENT TO NATIONAL PRIORITIES AND POLICIES



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STRATEGIC GOAL 1

To generate knowledge and technologies that will enhance the efficiencies in crop based agriculture

FOCUS OF GOAL

- Broaden the food base for food security and nutrition, and welfare
- Optimised crop production systems to mitigate agricultural risks
- Improved cultivars (food and non-food) through breeding, physiology and genetics
- Enhanced crop protection systems
- Crops and mixed production systems developed for smallholder farmers

OUTCOMES WITH ASSOCIATED IMPACT

- New cultivars that would ensure higher profitability
- Mitigation strategies against biotic and abiotic stresses that would improve productivity
- Sustainable production systems
- Reduction in post harvest losses
- New products and processes developed from primary agriculture

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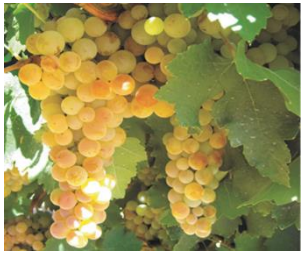
FRUIT BREEDING RESEARCH FOR A COMPETITIVE INDUSTRY

- New raisin grape cultivar 'Sundowner' is the first ever South African-bred raisin cultivar granted commercial registration with registrar of plants of South Africa in 2019/20. Name 'Sundowner' depicts the reddish blush on the ripe berries, which resembles sunset.
- Other deciduous fruit cultivars registered in the strategic plan period between 2015/16 to 2019/20 include 1 red seedless table grape cultivar ('Joybells'), 5 Japanese plum cultivars ('Afrigold', 'Flavour Star', 'Midnite', 'Red Gem', 'Royal Amber'), and 1 early-ripening nectarine cultivar ('Alpearli'); 5 new apple cultivars that can be grown under warmer climate conditions were also registered in the 'Afri-Range' of low chilling apples ('Afri Blush', 'Afri Coral', 'Afri Glo', 'Afri Rose', 'Afri Star').
- Achievements from the Tropical and Sub-tropical Crops campus include granting of ARC's 'ARCCIT1519' (also known as African Sunset) Plant Variety Rights in New Zealand on 9 September 2019.
- ARC Citrus Breeding Program also held a citrus evaluation day for marketing agents at the ARC Addo Research Farm on May 2019. Four cultivar marketing companies (Stargrow, Citricom, Citrus Genesis & Citrogold) attended the evaluation to view new citrus varieties bred by the ARC-TSC's Citrus Breeding Team. This is an important engagement for successful commercialisation of these outstanding cultivars.



'Sundowner' raisin grape

'Flavour Star' red plum

ARC's 'ARCCIT1519' (also known as African Sunset)

Various citrus marketing agents were invited to evaluate new citrus selections at ARC's Addo Research Farm in the Eastern Cape.

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GRAIN BREEDING RESEARCH FOR FOOD SECURITY

- The ARC released a new drought tolerant and insect-protected maize hybrids. These hybrids have resistance to both stalk borer and fall armyworm as well as tolerance to drought and low soil nitrogen. The ARC-GC maize breeding team, in collaboration with provincial departments of agriculture, planted the WEMA hybrids in smallholder farmers' fields in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North West provinces, to create awareness.
- Farmers growing TELA seed were able to control fall armyworm effectively despite FAW disaster in 2019/20 summer season.
- The ARC wheat pre-breeding program is using marker-assisted backcrossing to develop germplasm resistant to Fusarium Head Blight (FHB). This is a devastating disease of wheat caused by the ubiquitous *Fusarium graminearum* fungal complex that reduces wheat yields by 10-40%. This disease has been increasing in prevalence world-wide and is not easily controlled using fungicides.

Smallholder farmer's (Drought TELA^{TM} Hybrid) crop free of FAW – Matibidi in Mpumalanga Province.

Farmer with crop severely damaged by FAW – Matibidi in Mpumalanga Province.

A wheat ear infected with *Fusarium* Head Blight (FHB)

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BROADENING THE FOOD BASE FOR FOOD SECURITY & NUTRITION

- The ARC also evaluates indigenous and traditional crop germplasm to identify genotypes that can be released to farmers for cultivation, as well as germplasm that can be used in the breeding programme.
- Over the 5-year period four potatoes, 5 Cowpea, 5 Bambara groundnut, 4 amaranth, 4 corchorus lines (2 with high Fe and Zn content and 2 for high yield), 2 okra genotypes and 20 sweet potato lines were selected for commercialization/ promotion.
- 2 applications for Plant Breeders's Rights for ARC potatoes were approved in 2016 and 2 further applications were submitted in 2019 for cultivar registration;1 sweet potato cultivar was registered and another 2 applications for Plant Breeders' Rights were submitted for cultivar registration.
- Indigenous fruits are well-adapted to local environmental conditions, but mostly under-utilised. Research on selected species such as Kei-apple (*Dovyalis caffra*), marula (*Sclerocarya birrea*) and African mangosteen (*Garcinia livingstonei*) show that they are well suited for product development. Kei-apple fruit, for example, are a rich source of amino acids with excellent antioxidant properties making them extremely suitable for agro-processing and the development of value-added jams, nectars and other products.

Farmers discussing cowpea lines at a farmers' day held in Groblersdal, in the Sekhukhune District of Limpopo Province. The purpose was to promote the planting of these high protein crops as a nutrition security initiative.

Kei-apple fruit is a rich source of amino acids and has excellent antioxidant properties

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STRATEGIC GOAL 2

To generate knowledge and technologies that will enhance efficiencies in livestock, wildlife and aquaculture based agriculture

FOCUS OF GOAL

- Development of Animal Vaccines
- Development of Diagnostic and Analytical Technologies
- Improvement to Veterinary Public Health
- Development of Disease Control Strategies
- Development and introduction of new traits and genetic diversity in animals
- Enhance animal production and nutrition technologies
- Animal, crop and mixed production systems developed and transferred to smallholder farmers
- Animals and mixed production systems developed for smallholder farmers

OUTCOMES WITH ASSOCIATED IMPACT

- High quality improved meat and dairy products that are safe, highly nutritional with visual appeal
- Affordable meat and dairy products
- Disease free herds (livestock & wildlife)
- Reduced degradation of rangelands
- Improved livestock production through adoption of improved rangeland management
- Effective animal breeding methods/techniques
- Increased efficiency of livestock production from breeding
- Improved livelihoods among smallholder farmers
- Reduced number of stock theft incidents
- Disease and residue free animal products for increased market access

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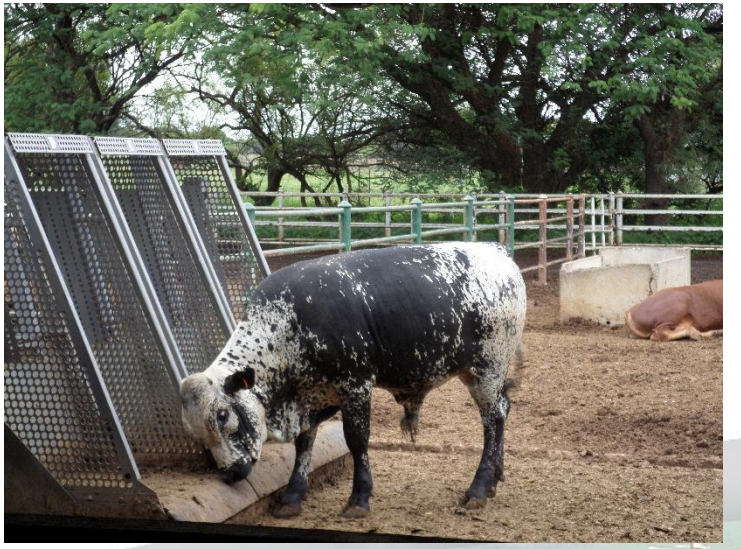
GROWSAFE BEEF SYSTEMS TECHNOLOGY - IMPROVING FEED EFFICIENCY

- Improving Feed Efficiency through using state-of-art **GrowSafe Beef Systems Technology** from Canada
- Feed efficiency testing done in **70 days** instead of **84 days** – more affordable for farmers
- Important data (e.g. daily weight gain, feed and water intake, and behaviour) for improvement of the national cattle herd is captured in real-time

GrowSafe Beef Systems Technology



Bulls on feed efficiency test in at ARC in Irene, Pretoria

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UNDERSTANDING WATER USE EFFICIENCY BY INDIGENOUS VEGETATION TO SUPPORT LIVESTOCK PRODUCTION

ARC researcher collecting carbon and water fluxes data using the Eddy Covariance equipment.

- Comparison of three models in the Albany Thicket in Eastern Cape
- Data from an Eddy Covariance system was used to verify output from three different models of evapotranspiration
- **Important findings**: Albany Thicket is not as water efficient as originally thought
- **Policy implication**: Planting spekboom extensively throughout the Albany Thicket will result in significant water loss through evapotranspiration

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NATIONAL BEEF IMPROVEMENT SCHEME - FARM SUPPORT

- Commercial farmers

- National Beef Improvement Scheme provided **ICAR** accredited scientific services to commercial farmers to ensure continuous genetic improvement of the national beef herd:
  - Growth and feed efficiency testing
  - Scanning of live-ultrasound measures of meat quality
  - Data recording and processing through INTERGIS – provides farmers with animal improvement reports for cow and bull selection

ARC Chief Research Technician scanning bulls in Phase C.

ICAR : International **C**ommittee on **A**nimal **R**ecording

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VACCINE DEVELOPMENT & DIAGNOSTIC TESTING

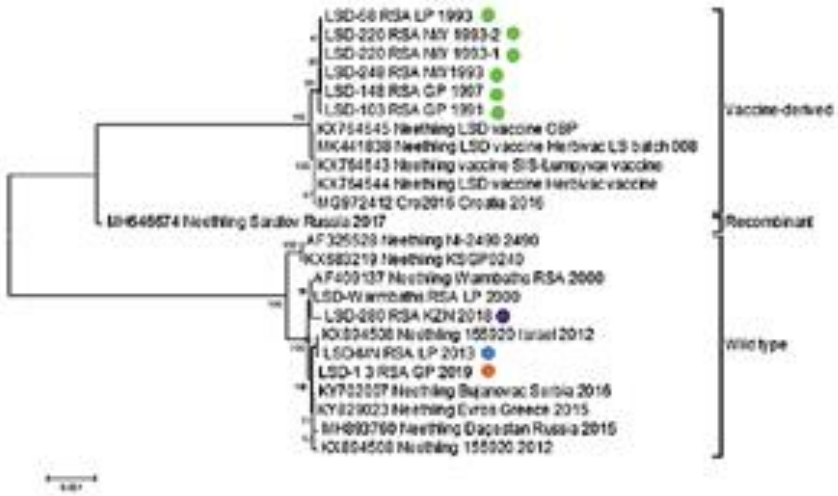
- Vaccines in advanced stage of development:
  - 2-in-1 livestock vaccine for Rift valley fever and Lumpy skin disease
  - DNA based vaccine for Heartwater
    - These are new generation vaccines which, if successful, will make an immense contribution to animal disease control in South Africa and benefit the farming community and the economy of the country

- Putative new Lyssavirus species identified in the Natal long-fingered bat (causative agent for Rabies) - commercial rabies vaccine may not offer protection against this virus
  - Spill over of viruses from animals (especially bats) to humans has gained centre stage following SARSCoV2 infections that cause COVID-19. Since there is no cure or vaccine, contact with these bats must be avoided

- Improved test for bovine tuberculosis - 10 weeks vs 2 hours
  - The reduced time saves costs and reduces the spread of the disease

LUMPY SKIN DISEASE HOTSPOTS IDENTIFIED

- Lumpy skin disease (LSD) is a viral disease of cattle and is endemic in Africa. The presence of the disease results in international trade restrictions, while at the regional level the most affected are small scale developing farmers whose livelihoods depend on cattle farming
- Conducted a Lumpy skin disease sero-surveillance study in Gauteng to identify potential “hotspots” of this notifiable disease
- Surveillance data collected plays a big role in informing the vaccination programme strategy to be adopted



Maximum likelihood phylogenetic tree showing the sequences of the seven virus isolates from the University of Pretoria, Faculty of Veterinary Science

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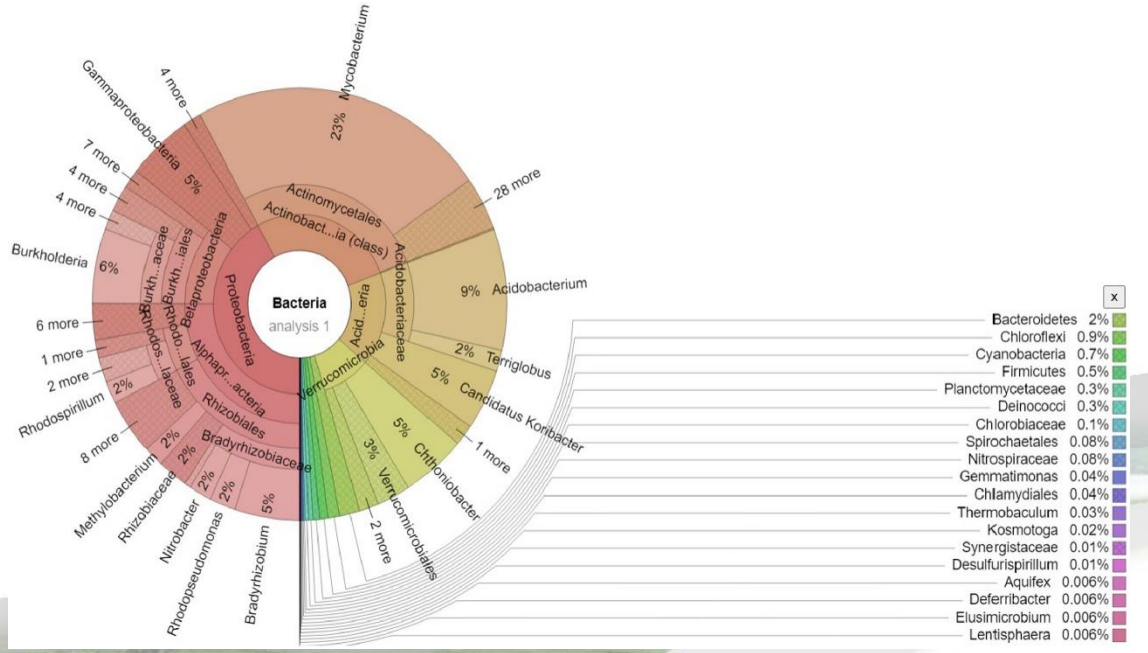
NEW DIAGNOSTIC TEST FOR AFRICAN HORSE SICKNESS

- African Horse Sickness is seasonally endemic to South Africa, with the exception of the controlled areas in the Western Cape Province.
- Annual outbreaks of the disease occur throughout the infected zone and therefore no restrictions on equid movements are placed or implemented.
- New serotyping assay (diagnostic test) for African Horse Sickness virus. This test is based on RT-PCR and sequencing and can distinguish between the 9 serotypes, field virus and vaccine strains.
- Allows identification of the actual variant of the causative serotype for AHS virus causing the disease allowing for better targeting of the disease control efforts.

New diagnostic test for African horse sickness

NEXT-GENERATION SEQUENCING FOR ENVIRONMENTAL MICROBIAL PROFILING AND THE DETECTION OF ANTIMICROBIAL RESISTANCE

- Exhaustive use of antibiotics in humans, animal farming and other agricultural practices has resulted in the appearance of antibiotic-resistant bacteria in human-impacted habitats.
- The ARC is actively studying the influence of micro-organisms on the environment and the potential benefit or loss the presence of micro-organisms may invoke.
- This includes the detection and profiling of antimicrobial resistance elements in environmental samples.



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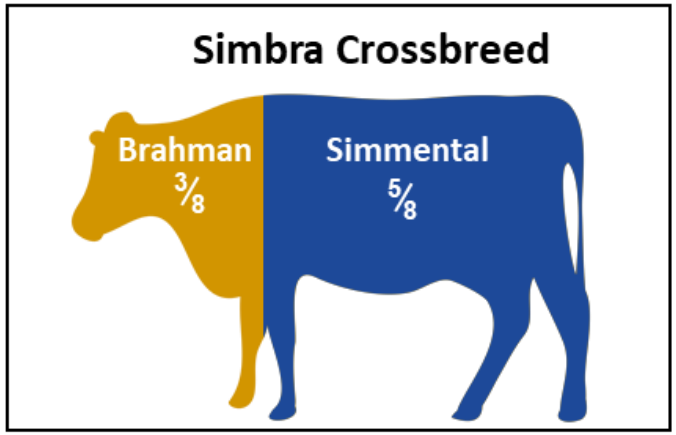
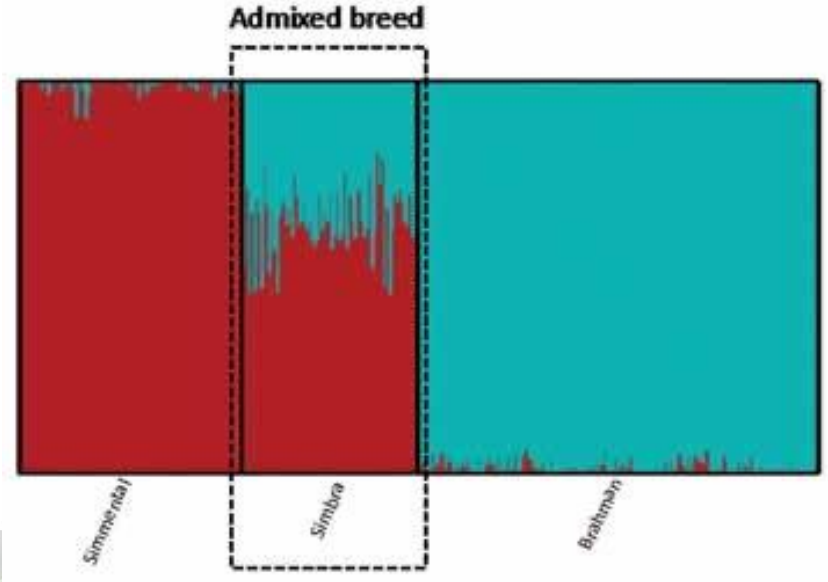
GENOMIC TESTING EMPOWERING SMALL-SCALE CATTLE FARMERS IN SOUTH AFRICA

- More than a third of beef cattle are owned by emerging and small-scale farmers in South Africa. However, the average performance of beef cattle in small-scale herds is currently low compared to those in commercial herds. There is thus significant scope to increase performance (e.g. fertility) in the small-scale herds.

- Genomic testing can aid to increase cattle performance of emerging and small-scale farmers reducing the discrepancies between small-scale herds and commercial herds. The ARC aims to increase participation of emerging and small-scale farmers in the use of genomics to increase productivity and adaptability and profitability.





Admixture analysis of Simbra cattle

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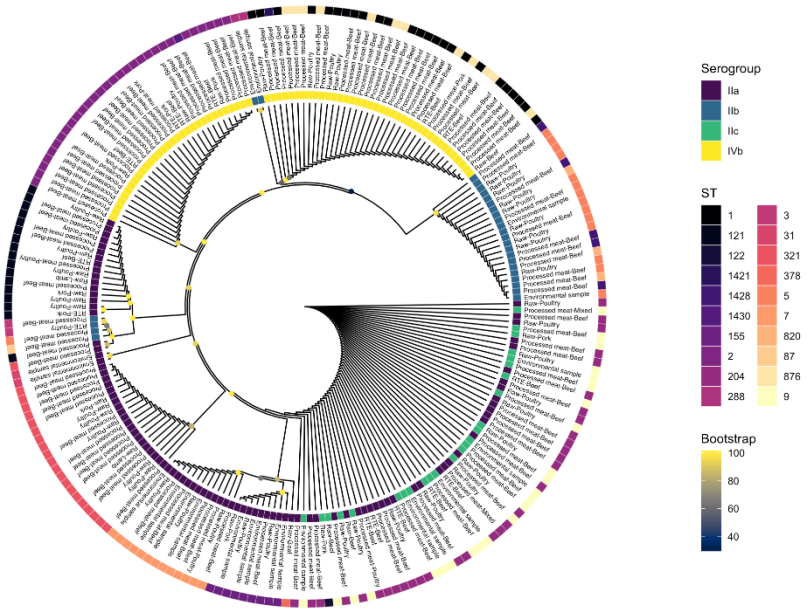
5 - YEAR STRATEGIC HIGHLIGHTS

NEXT-GENERATION SEQUENCING FOR FOOD-BORNE DISEASE SURVEILLANCE

- Red Meat and Poultry products have been implicated in various food-borne disease outbreaks both locally and globally
- ARC has established genomics-based workflows focused on the surveillance of food-borne pathogens in the South African "farm to fork" food value chain
- These workflows allow the rapid identification of food-borne pathogens
- This includes the detection of antimicrobial, biocide and metal resistance
- This information is currently being incorporated in a database to inform stakeholders of past and present foodborne pathogen detection



Phylogenetic analysis of *inlA* gene sequences obtained from 217 *Listeria monocytogenes* isolates obtained from Red Meat and Poultry products

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STRATEGIC GOAL 3

To generate knowledge and technologies for the conservation and utilisation of natural resources

FOCUS OF GOAL

- Well-functioning natural assets and natural resources databases
- Efficient utilisation of natural resources for improved agricultural productivity
- Weather and climate research to increase production
- Crop water productivity and efficiency at various planning and operational levels

OUTCOMES WITH ASSOCIATED IMPACT

- Maintenance and management of genetic material databases and national collections
- Prediction models for pests, diseases and alien invaders
- Provision of expert technical advisory services to support management of climate variability and natural disasters
- Management of agricultural water and integrated management of catchments
- Mapping of existing and potential production areas

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EFFICIENT UTILISATION OF NATURAL RESOURCES FOR IMPROVED AGRICULTURAL PRODUCTIVITY

- Climate friendly technologies are crucial to the success of production systems which use less water and other inputs. Conservation Agriculture (CA) practices ensure proper soil health conditions that enhance water use efficiency and plant nutrition optimisation

- Two field trials were established on a sandy Clovelly and a sandy-loam Hutton soil in the northwestern Free State and North West provinces, respectively with the aim of comparing conventionally-produced maize with maize produced in three conservation agriculture crop systems

- Improvements in yield, and rainfall use efficiencies, were present especially during seasons with drought when the Conservation Agriculture yields were between 2641 and 4804 kg/ha higher than the yields of the Conventionally Tilled system

Planting under minimum tillage system. The uptake of Conservation Agriculture is about 40%, mostly by farmers in KwaZulu-Natal, Mpumalanga, North West, and Free State in that order

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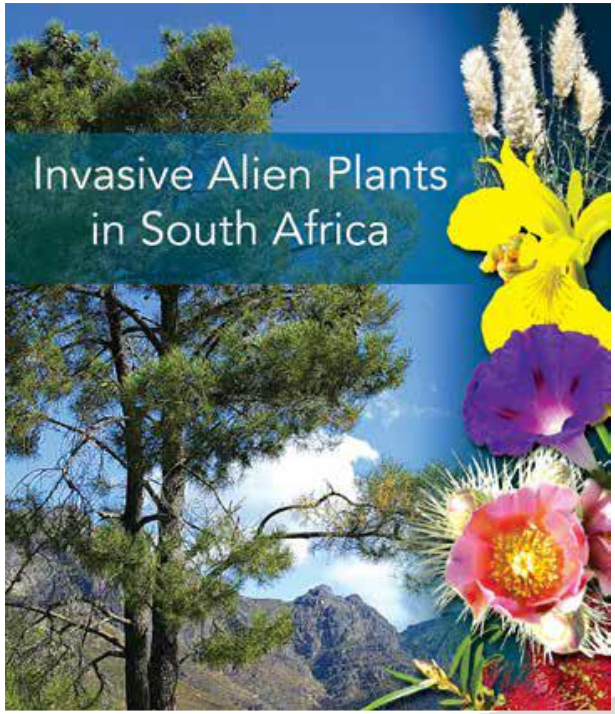
EFFICIENT UTILISATION OF NATURAL RESOURCES FOR IMPROVED AGRICULTURAL PRODUCTIVITY

- ARC Plant Health and Protection has launched a new book on "Invasive Alien Plants in South Africa". The new full colour, glossy 384-page field guide provides a species account and description of over 400 of the most prevalent invasive alien plants listed under the National Environmental Management and Biodiversity Act 10 of 2004

- The colour coding of major plant groups, as well as high quality photographs and descriptive symbols, makes for easy identification for the amateur botanist and general public

- Publication of this book was funded by the Natural Resource Management Programme of the Department of Environment, Forestry and Fisheries, and it will become an indispensable guide to the invasive alien plants of South Africa



New book on Invasive Alien Plants in South Africa

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STRATEGIC GOAL 4

To generate knowledge, solutions & technologies for food safety, quality and improved efficiencies in the agriculture value chain

FOCUS OF GOAL

- New food and non-food processes and products developed
- Food science and technology developed for improved product quality and yield
- Post-harvest losses reduced
- New animal products developed.
- Agroprocessing, biotechnology and informatics each cross-cutting across different areas of the agricultural value chain and intended to be applied to the full value chain of crops, animals and agricultural system research

OUTCOMES WITH ASSOCIATED IMPACT

- Develop process to create products from indigenous crops
- Product yield, product quality and safety
- Product development and value adding (storage, processing and packaging)
- Additional research focus areas include indigenous and high value products (indigenous herbal teas, medicinal and aromatic plants, fruits and vegetables) to access niche product value chains
- Provision of scientific services to farmers and clients of the ARC
- Animal agriculture research groups conduct research primarily investigating the various factors involved in producing good quality meat, meat products as well as milk and milk products (safe, appealing, nutritious, affordable and tasteful)
- Research into the processes involved in maximising yield without forfeiting quality and adding value to a basic product to increase quality and/or yield

AGRO-PROCESSING BIOTECHNOLOGY

- The ARC Cellar is geared towards sustainable wine production, with installation of renewable energy via a solar powered system to reduce dependence on the grid. There is also efficient winery waste water management strategy in place and agro-tourism

- The facility serves as a platform for emerging winemakers, industry stakeholders and consumers

- The ARC and CREA in collaboration with the Italian Embassy in South Africa organised two joint events to expand the collaboration in the related thematic areas, namely, (a) "South African & Italian Wine Research Innovations: Current status & future prospects" on 18-19 November 2019, inclusive of the wine tasting on the 22 November 2019 at the Piazza Montecasino, and (b) Social and Economic Drivers in the Agricultural and Rural Sector to Promote Sustainable Local Development" on 2-4 December 2019

Participants attended the "South African and Italian Wine Research Innovations" event on 18 November 2019

DEVELOPMENT AND STRENGTHENING OF RADIO-ANALYTICAL AND COMPLEMENTARY TECHNIQUES TO CONTROL RESIDUES OF VETERINARY DRUGS AND RELATED CHEMICALS IN AQUACULTURE PRODUCTS

- The project fulfils the Department of Environment, Forestry and Fisheries, (DEFF) responsibility in terms of the Marine Living Resources Act, 1998 (Act No. 18 of 1998) of ensuring food safety as well as meeting the requirements of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972) and Codex alimentarius of which South Africa is a signatory

Aquaculture research: harmful chemical monitoring

- Development of techniques for monitoring of harmful chemicals in aquaculture in response to the Department of Environment, Forestry and Fisheries' Affairs planned implementation of a globally recognised monitoring system for such

- The new techniques are faster and globally accepted. Such testing is a requirement for export of aquaculture products

STRATEGIC GOAL 5

To generate and disseminate knowledge and technologies for decision-making and transformation of the agricultural sector

FOCUS OF GOAL

- ARC technologies packaged and exploited
- Established and functional agri-incubators
- Animal, crop and mixed production systems transferred to smallholder farmers
- Agriculture Development Centres that are delivering services. ARC footprint and visibility enhanced
- Smallholder farmer enterprises support
- Agricultural skills and capacity developed
- Agriculture research for development outcomes communicated and disseminated
- Marketing and stakeholder management

OUTCOMES WITH ASSOCIATED IMPACT

- Increased adoption and use of ARC technologies among smallholder farmers
- Increased number of functioning and sustainable agriculture enterprises from agri-incubators
- Increased number of animal, crop and mixed production systems transferred to smallholder farmers
- Agriculture Development Centres established in all provinces
- Competitive and sustainable Smallholder enterprises
- Increased skills base and capacity in agriculture sector
- Increased use of and application of agriculture science and technology in decision-making
- Improved image and relations of ARC with stakeholders

KAONAFATSO YA DIKGOMO (KYD) SCHEME

- **Smallholder farmers**
- Farmers supported through the Kaonafatso ya Dikgomo scheme – a **special-purpose vehicle** to expedite **participation of smallholder farmers in livestock value chains**
- Farmers are provided with the following **science-supported** services:
  - **Animal identification and recording services** for managing stock theft and animal improvement
  - **Skills development through training** on animal husbandry, health, veld management etc.
  - **Market access** through auctions in partnership with Livestock Farmers Associations and Provincial Department of Agriculture(PDAs)
- **Tangible outcomes in the last 5 years**
  - Increased calving rates - more animals born
  - Increased off-takes - more animals sold
  - Interns participating in the programme found employment in the sector
  - Auctions created markets for farmers

ARC Senior Research Technician with KyD farmers after a successful event

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RESEARCH IMPACTS

- ARC research has demonstrated positive economic returns to the SA economy. Maize, wheat, beef and tobacco impact studies revealed good returns on investment (ROI)

- ARC's Centres of Collaborations with Universities have increased the throughput of MSc and PhD graduates as well as the generation of knowledge through peer reviewed publications and theses. Significant contribution to human resource development in the SA agricultural sector

- ARC has developed a comprehensive tool for farm and farmer assessment in support of the Land Reform Programme

- ARC provided Climate Smart Agriculture training to over 200 extension officers

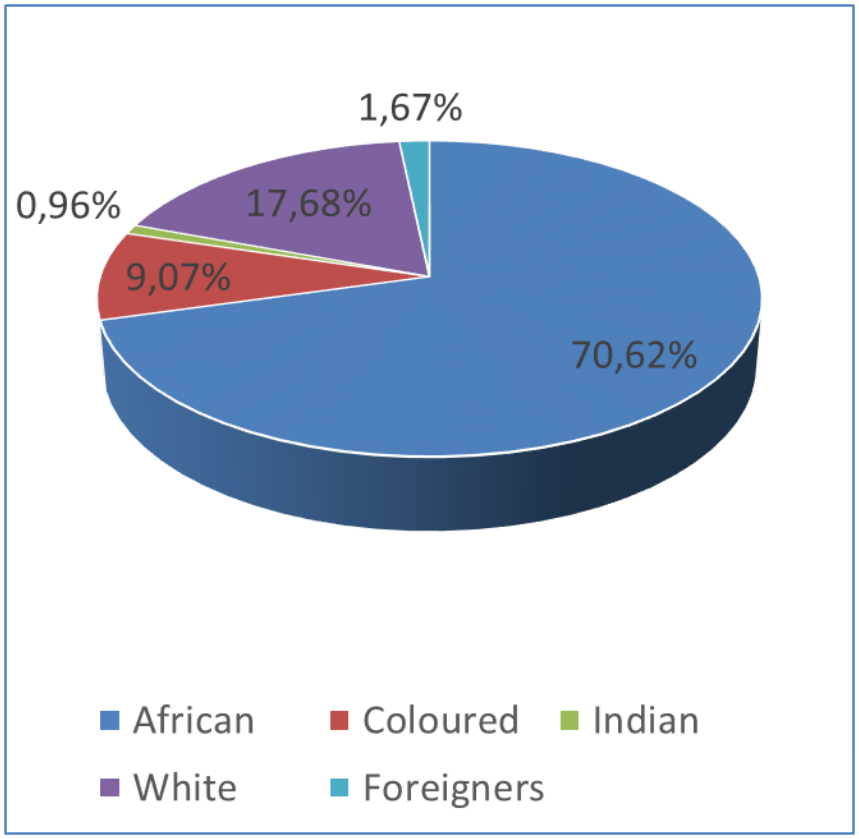
STRATEGIC GOAL 6

Apply resource management practices, towards a high performing and visible organisation

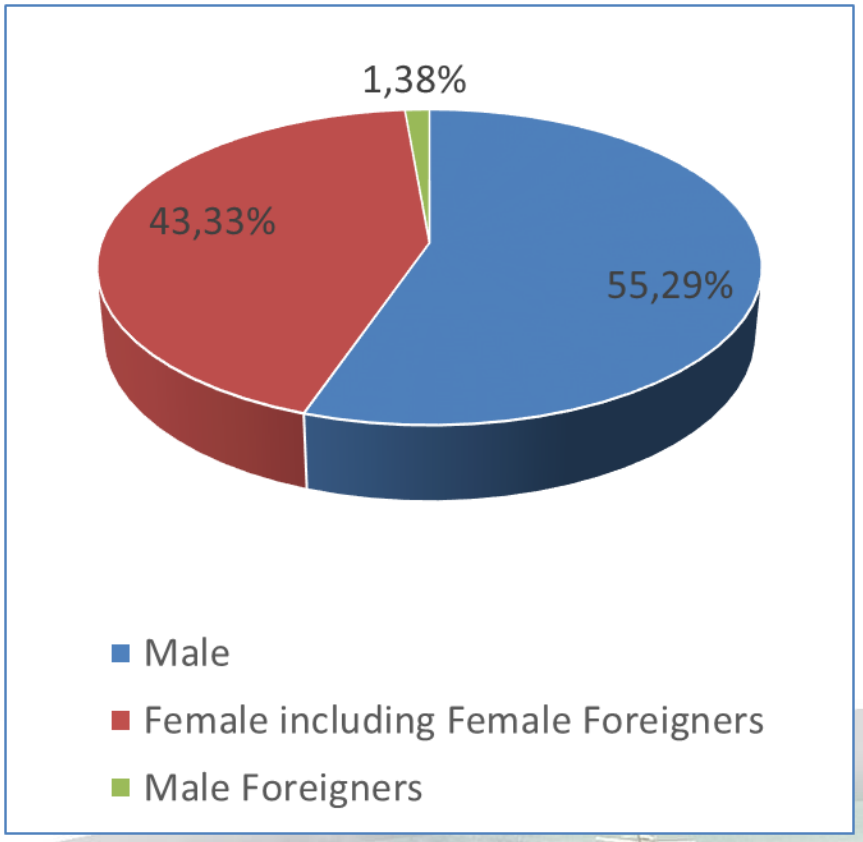
a) Human Resources

ARC DEMOGRAPHICS

ARC CAPACITY PER RACE



ARC CAPACITY PER GENDER



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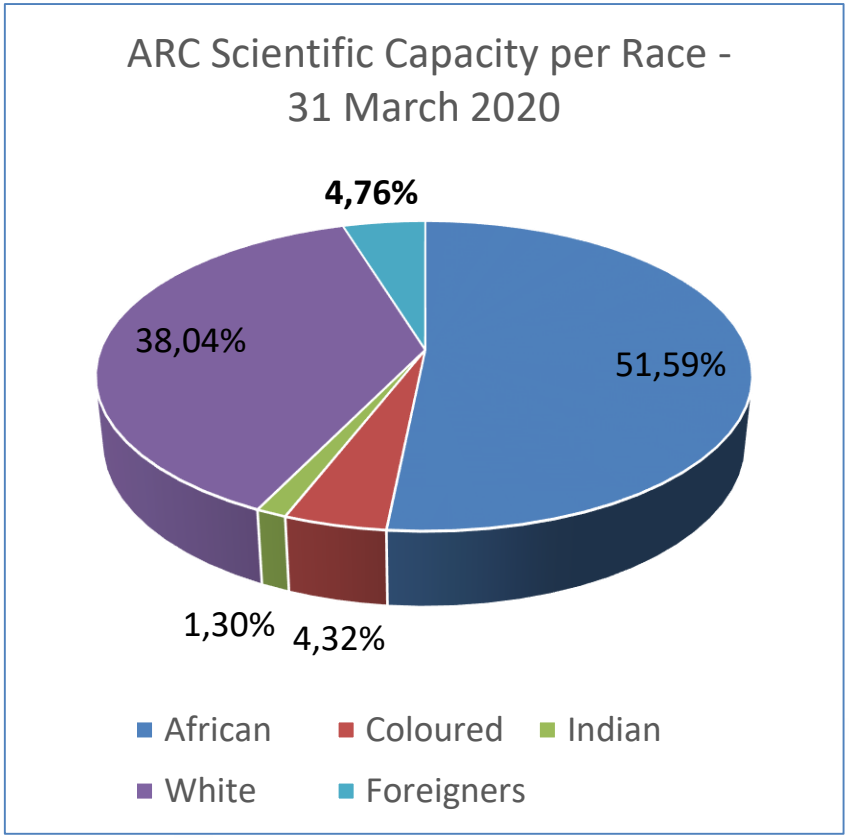
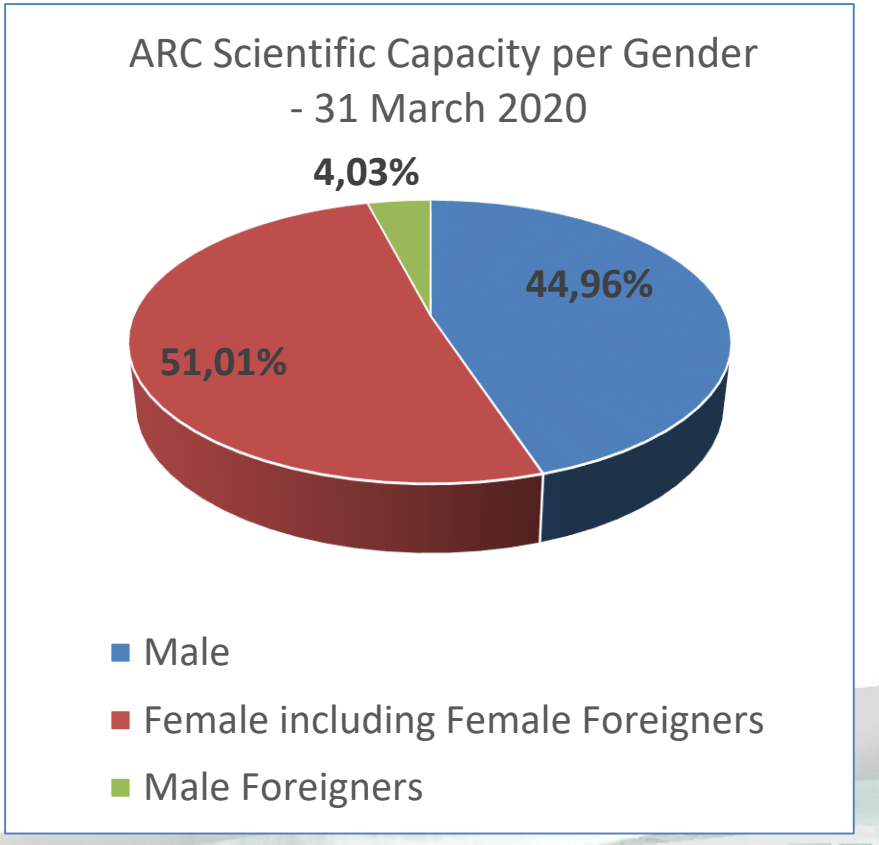
ARC DEMOGRAPHICS

ARC SCIENTIFIC CAPACITY PER RACE



ARC SCIENTIFIC CAPACITY PER GENDER



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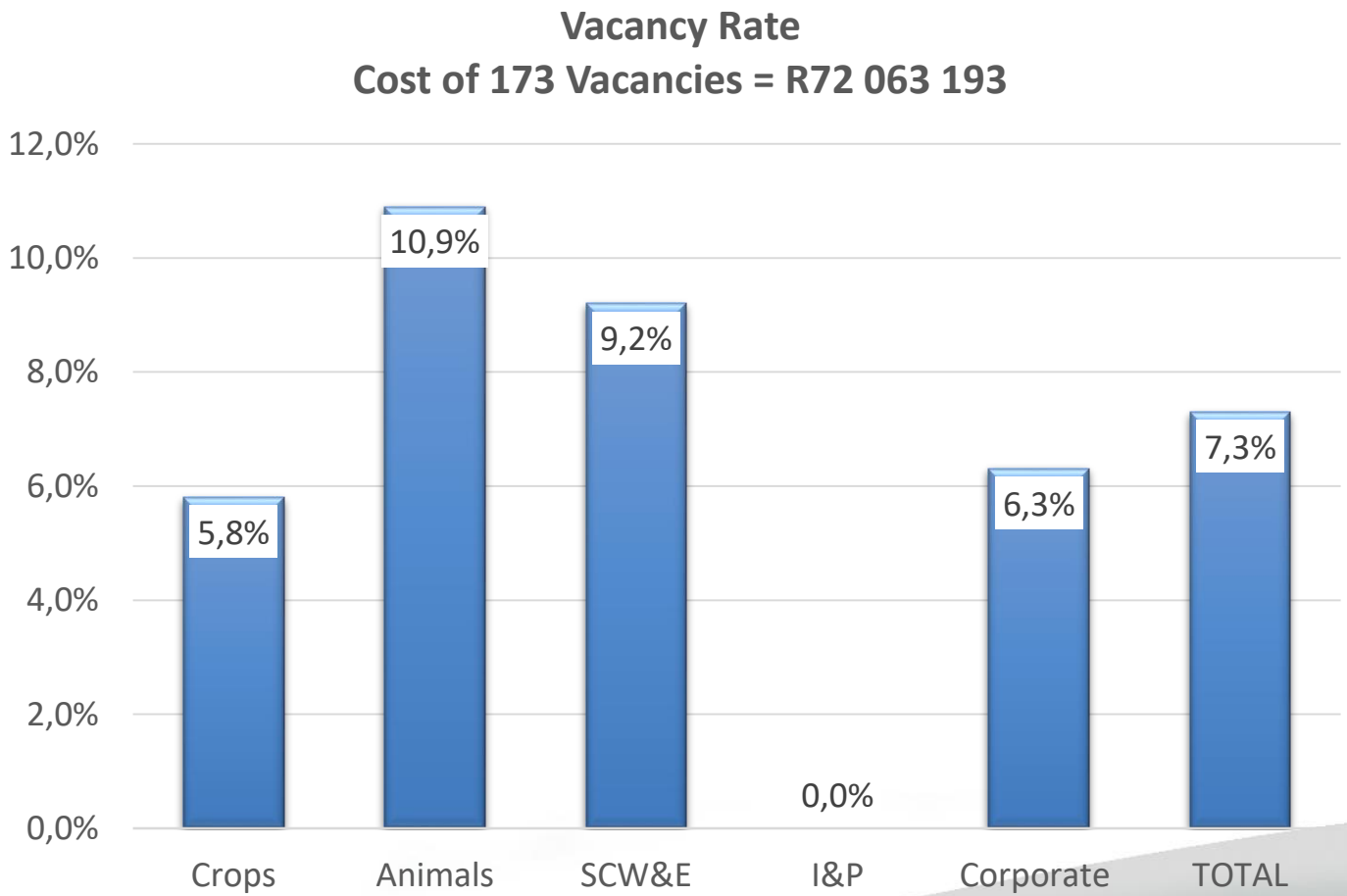
ARC VACANCY RATE



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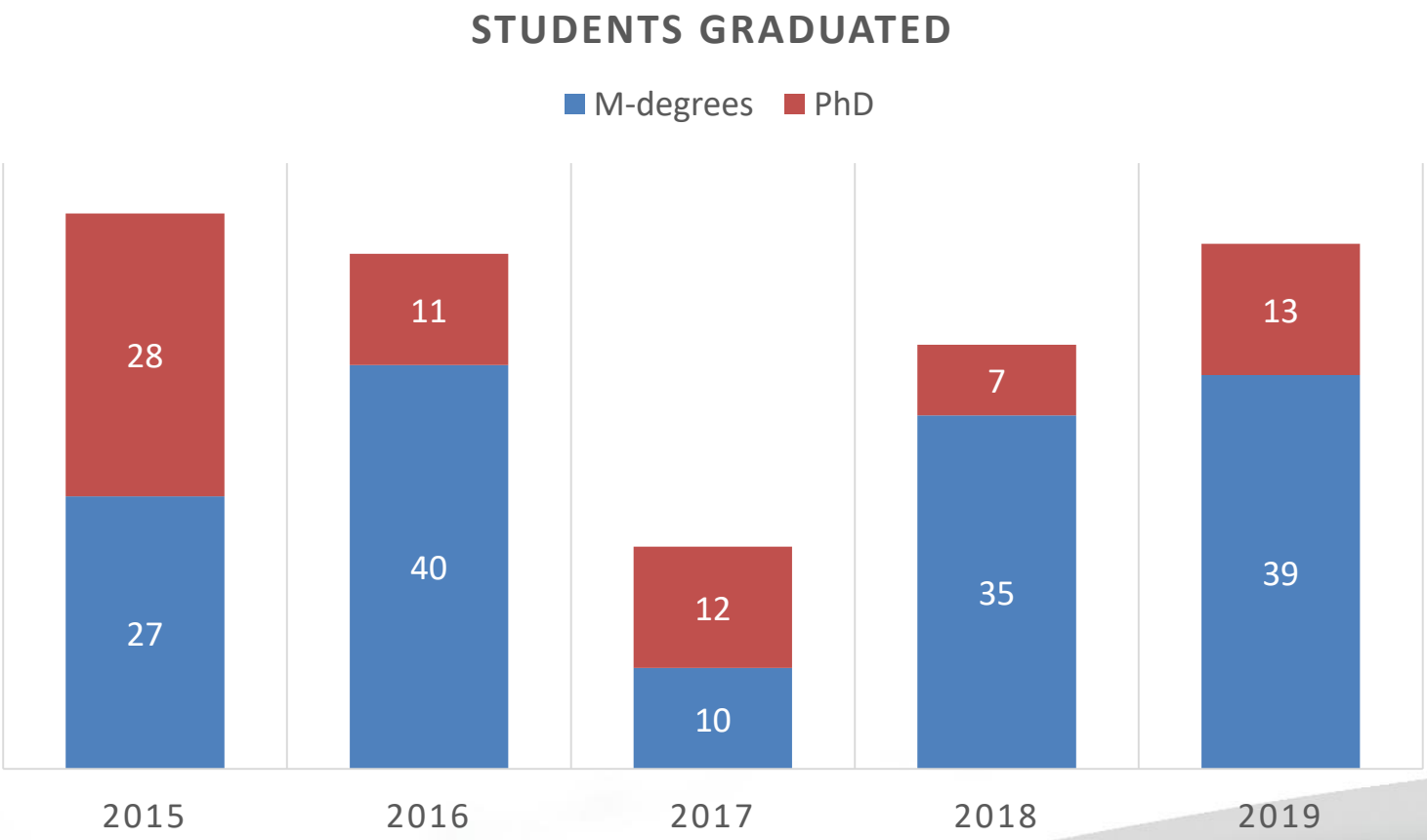
PDP STUDENTS GRADUATED



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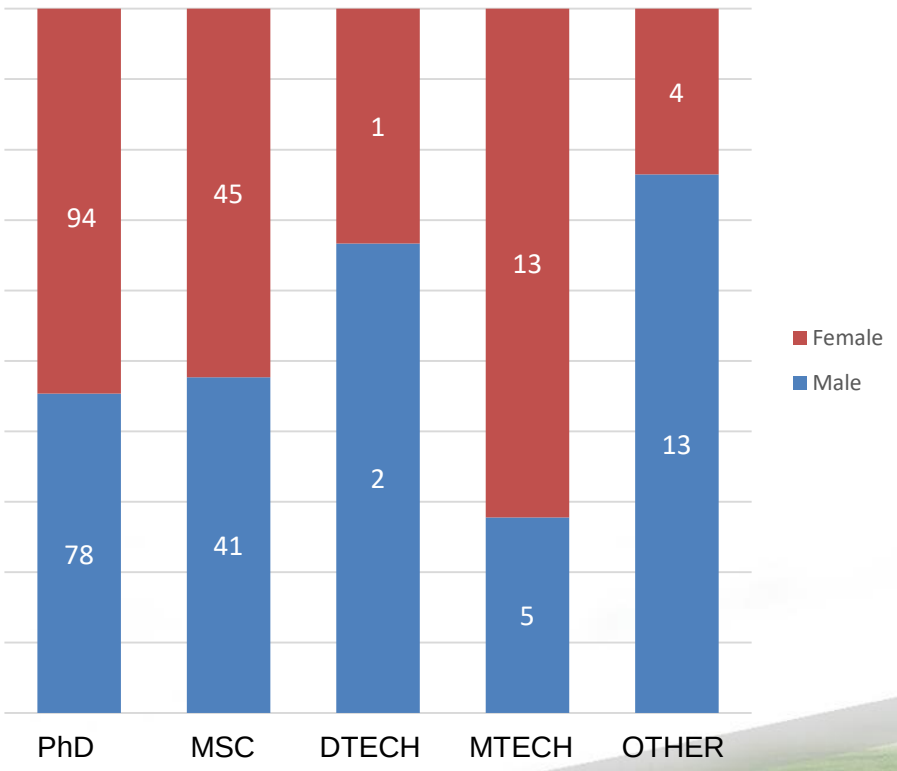
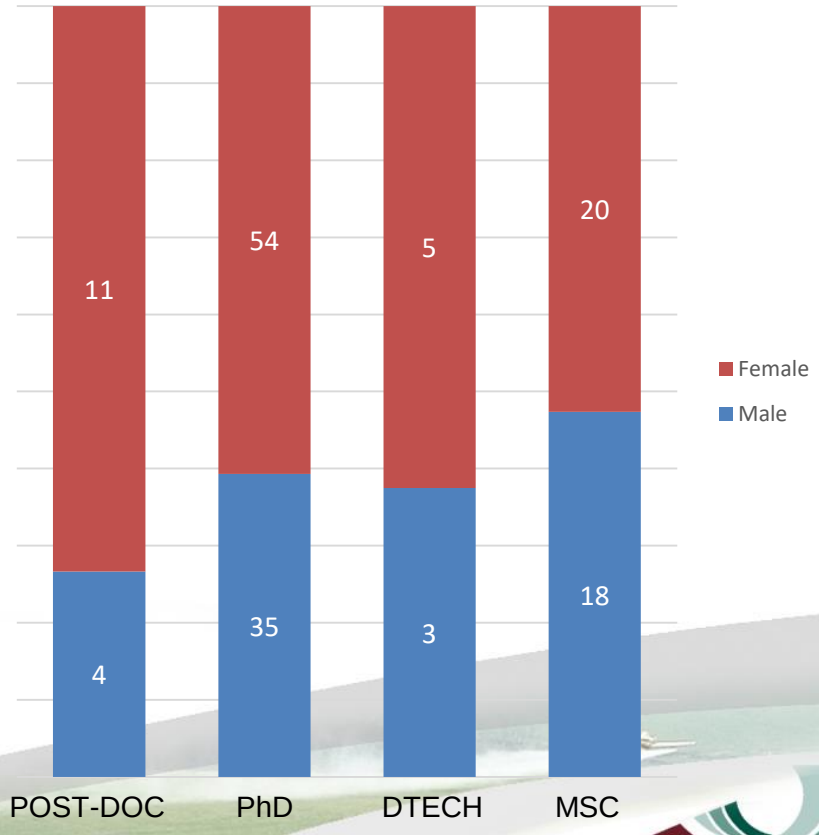
HUMAN RESOURCE DEVELOPMENT

PERMANENT EMPLOYEES



PROFESSIONAL DEVELOPMENT PROGRAM - STUDENTS



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EMPLOYEE RELATIONS

- ARC WAGE STRIKE 2019
  - First Strike in more than 10 years
  - NEHAWU Employees Embarked on Strike Action from 6 to 10 May 2019
  - Principle of No Work No Pay applied
  - Strike was resolved through negotiations with NEHAWU resulting in wage increases for employees in Bargaining Forum
  - Researchers and Management did not receive salary adjustments

b) Information Systems

Maize Information Guide

Maize Production

a) **Monthly Guide**
b) **Production Guidelines**

Pests

a) **Insect identification**
b) **Insect species classification**

Disease Identification

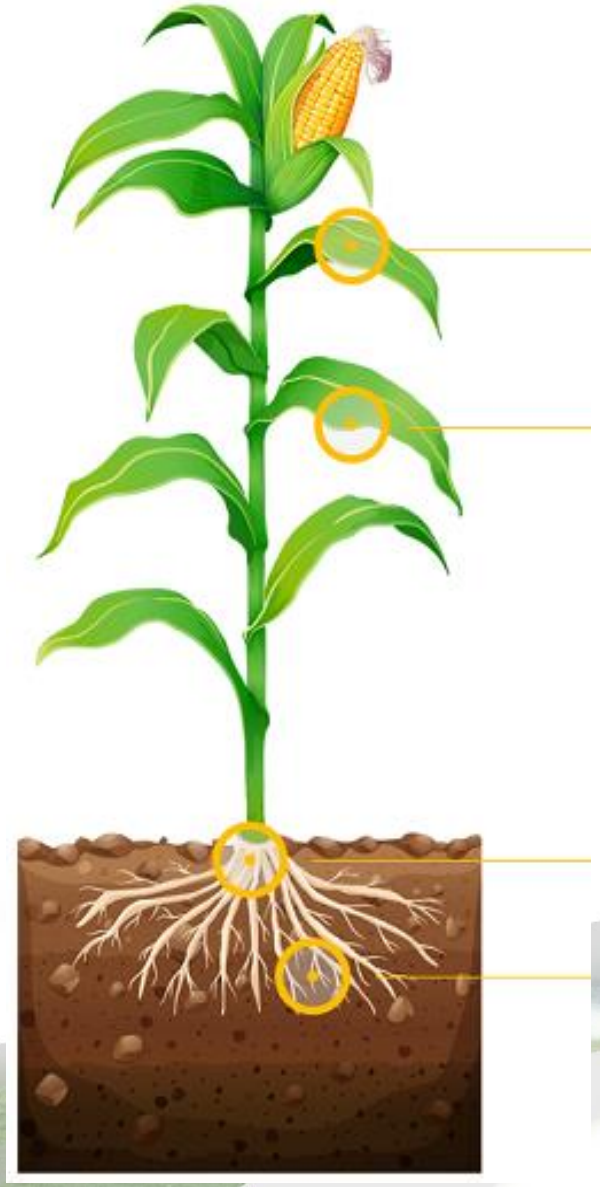
a) **Types of diseases**
b) **Control Measures**

Weed Control

a) **Weed identification**
b) **Control Measures**

Nutritional Deficiency

a) **Types of deficiencies**
b) **Fact Sheet**
c) **Control Measures**



Protein synthesis and growth regulation require Zinc (Zn). Reduced hormone production due to a Zn deficient plant will cause the shortening of internodes and stunted leaf growth

Zn is less mobile within the plant, so deficiency symptoms first appear on the younger leaves

Zn aids synthesis of plant-growth substances and enzyme system, and is essential for promoting certain metabolic reactions, which are particularly critical in the early growth stages

As soil pH increases, Zn availability decreases

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CACTUS PEAR GUIDE

Cultivars Guide

a) Type of cactus pear
b) Suitability

Fruit Production Guide

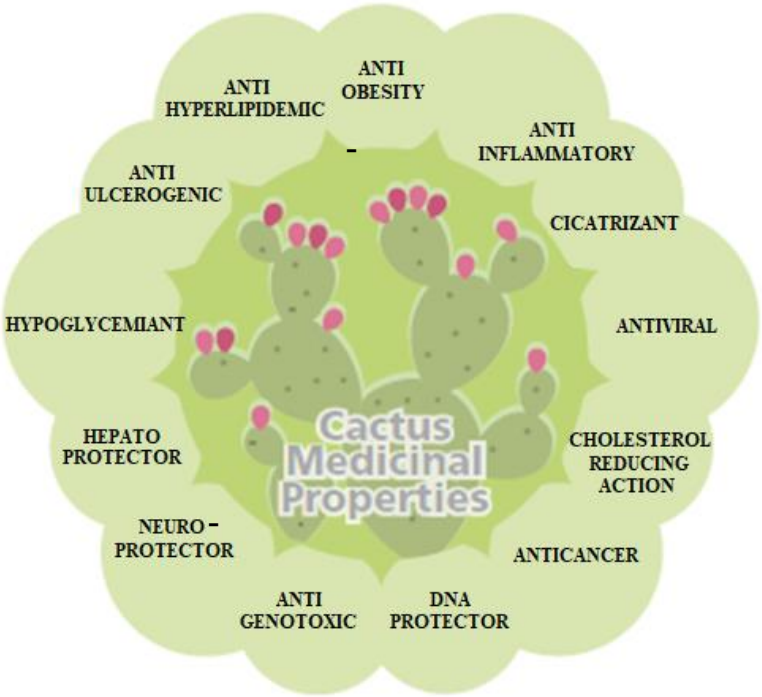
a) Orchard Planning
b) Planting
c) Fertilisation
d) Pruning

Feed Production Guide

a) Usefulness
b) Nutritional Value

Human Consumption

a) Processing
b) Product Choices



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AUDITED ANNUAL FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2020

1. Statement of Financial Performance

Governments Grants received R978.34 million [5.3% YoY growth)

Total expenditure R1.28 billion (1.6% YoY savings)

Surplus for the year reported R122 million

Below the line adjustments on Gain on Biological assets (New)

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2. Statement of Financial Position

- Net Assets of R1.60 billion [38% YoY growth]
- Growth in Current Assets
- Receivables from exchange transactions (R288k)
- Intangible Assets (R131k)
- Income received in advance (R907k)

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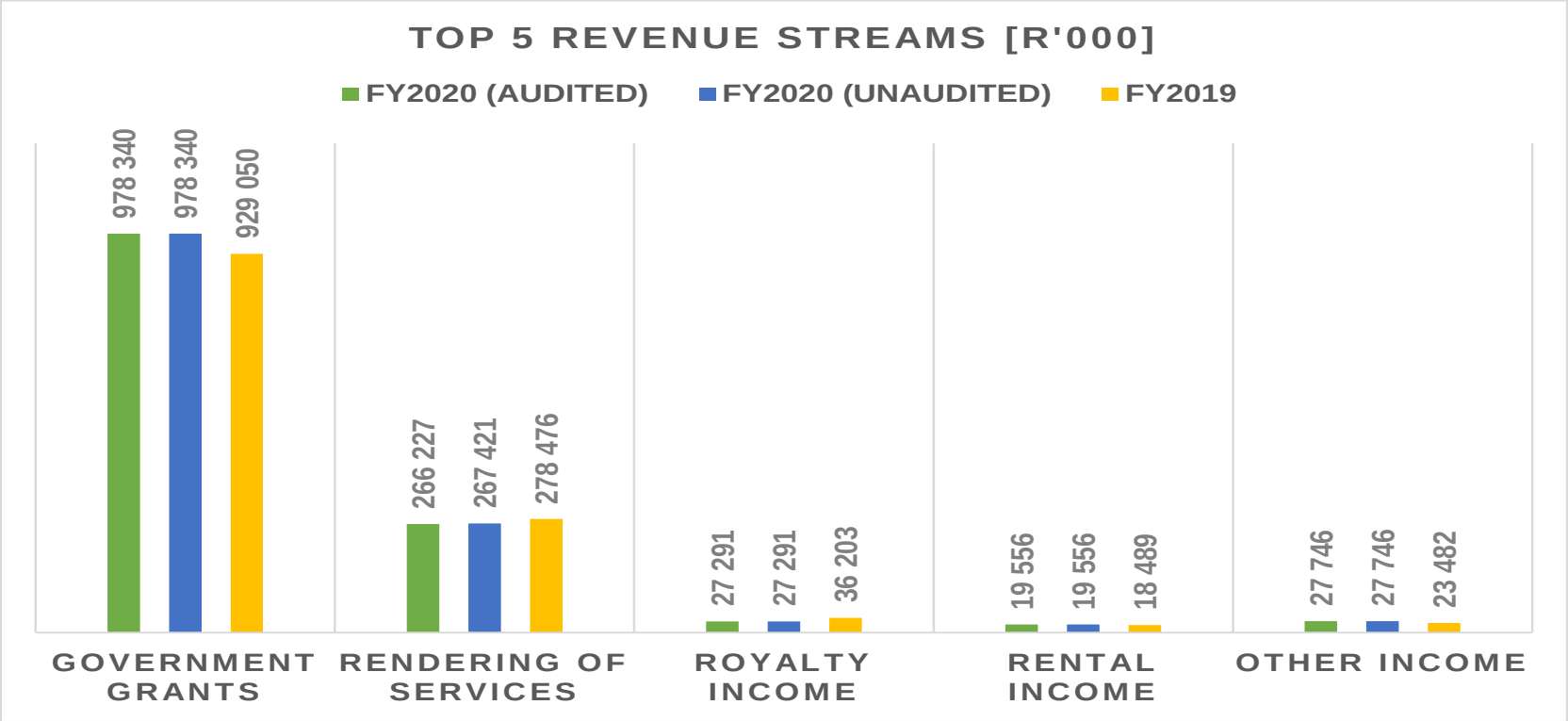
1.1. Revenue

5.3% growth YoY on Parliamentary Grant and 1.5% YoY decline on Revenue from Rendering of Services



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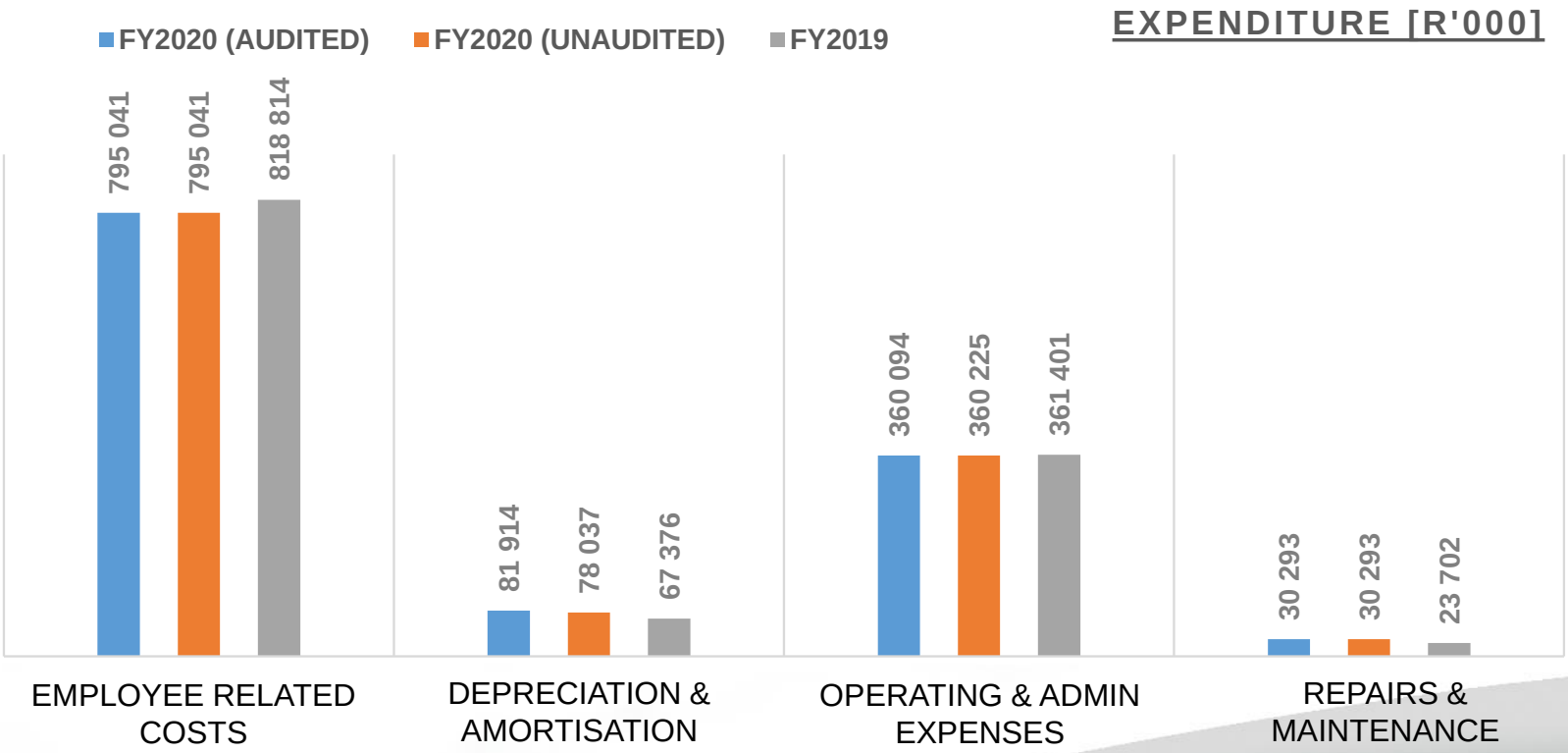
1.2. Expenditure

The Total Expenditure incurred of R1.28 billion, with 1.6% saving Year-on-Year



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1.3. Below the line adjustments

Operating Surplus reported of R79.9 million, which exceeded prior year by more than 400%

Below the line adjustments:

- Gain on Biological Assets and Agricultural Produce, which reduced R9.2 million
- The ARC embarked on a verification and revaluation of its Orchards and Vineyards during March 2020

Surplus for the year reported is R122 million, exceeded prior year by more than 500%

The ARC has been granted approval by the National Treasury [S53(3) & S53(1) of the PFMA] for the roll-over of surplus funds: R63.5 million

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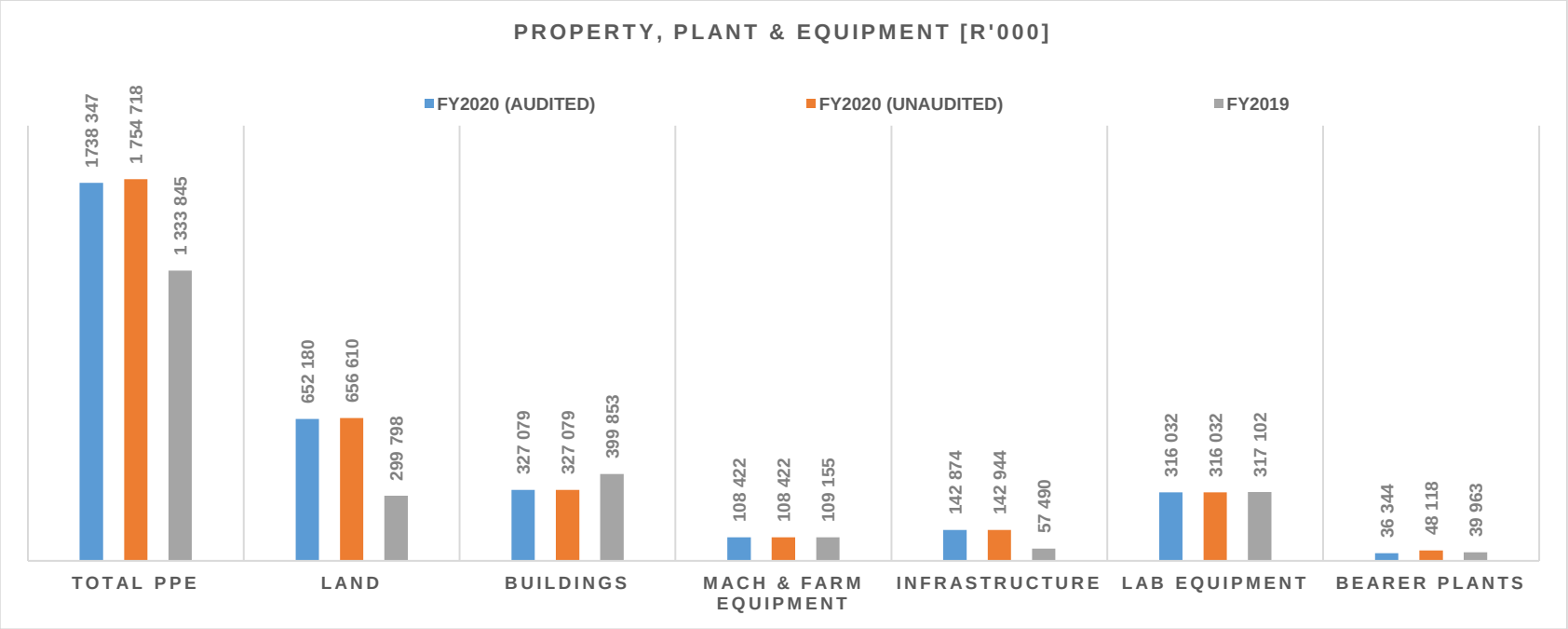
2.1. Property, Plant and Equipment

Land valuation adjustments, Bearer Plants and Capex spend influenced the favorable variances on PPE.



There were no changes on the following: Buildings; Computer equipment; Infrastructure; Laboratory equipment; Machinery and farming equipment; Motor vehicles and aircraft; Office furniture and equipment; Buffalo; Horse

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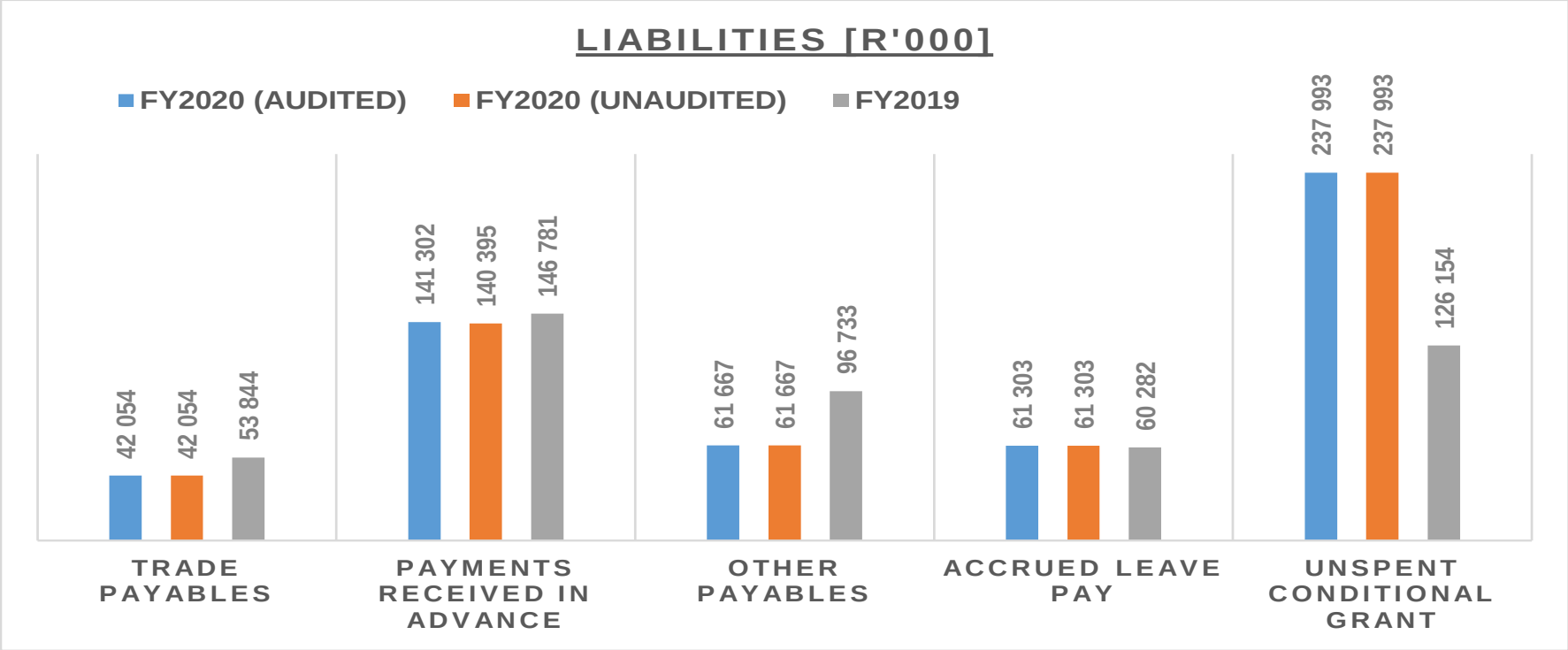
2.2. Liabilities

Trade payables declined YoY. Income received in advance declined YoY. The ARC is no longer using WIP accounts. Significant YoY growth on the Conditional grant.



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2.3. Commitments disclosure

The Commitments disclosure was adjusted due to the Open Purchase Orders (invalid), which were cancelled subsequent to the AFS submitted.

- Commitments (Unaudited) R31.13 million
- Commitments (Adjusted AFS) R17.59 million

Based on the Adjusted AFS, we subsequently observed deficiencies from the report extracted from Microsoft AX which did not reduce the value of the Open Purchase Orders that had partial GRN.

The amount that relates to the partial GRNs is R5.51 million, with a true Commitments (Estimated Future expenses) of R12.1 million.
[MANAGEMENT COMMENT ON AUDIT FINDING RAISED ON 19 SEPTEMBER 2020]

*Audit finding was raised after Management updated the disclosure due to the cancellation of the Purchase Orders requested as part of the RFIs)

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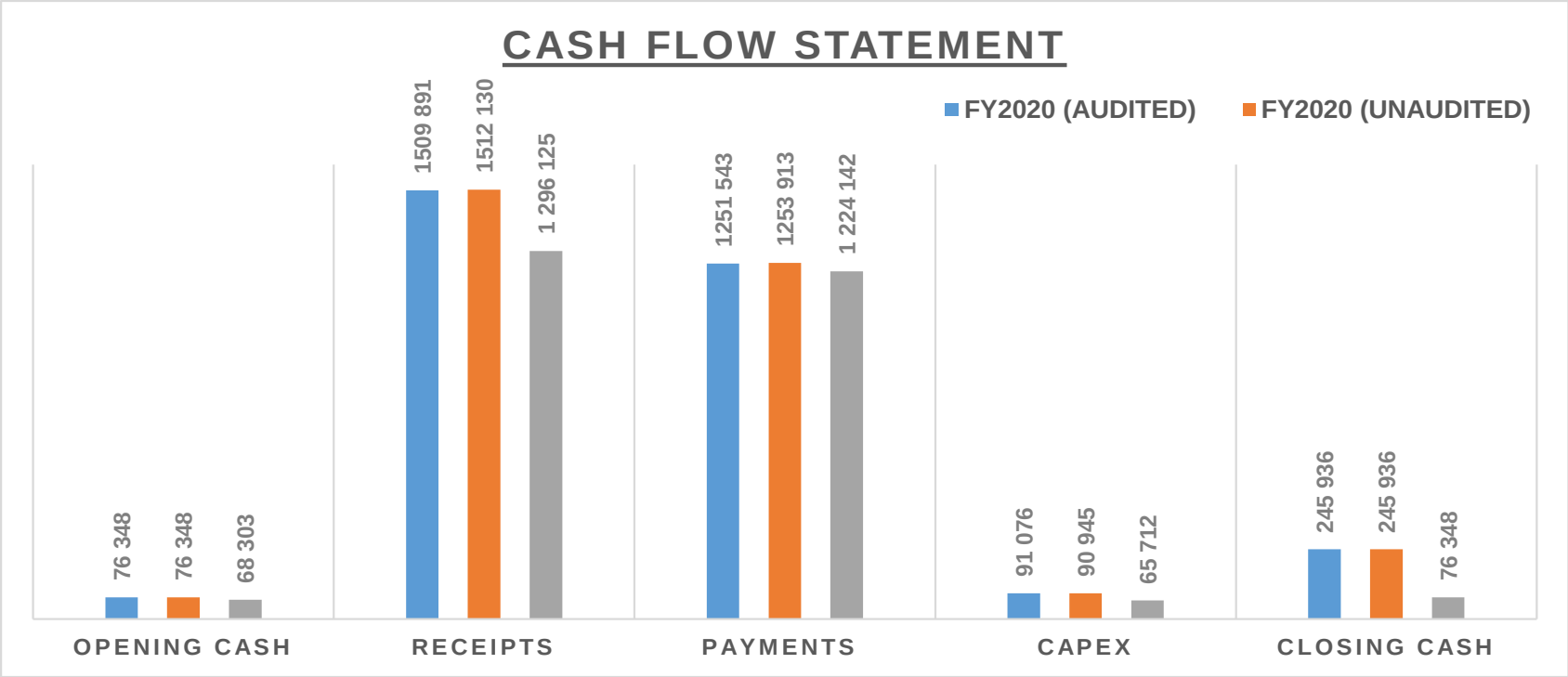
3. Cash Flow Statement Overview



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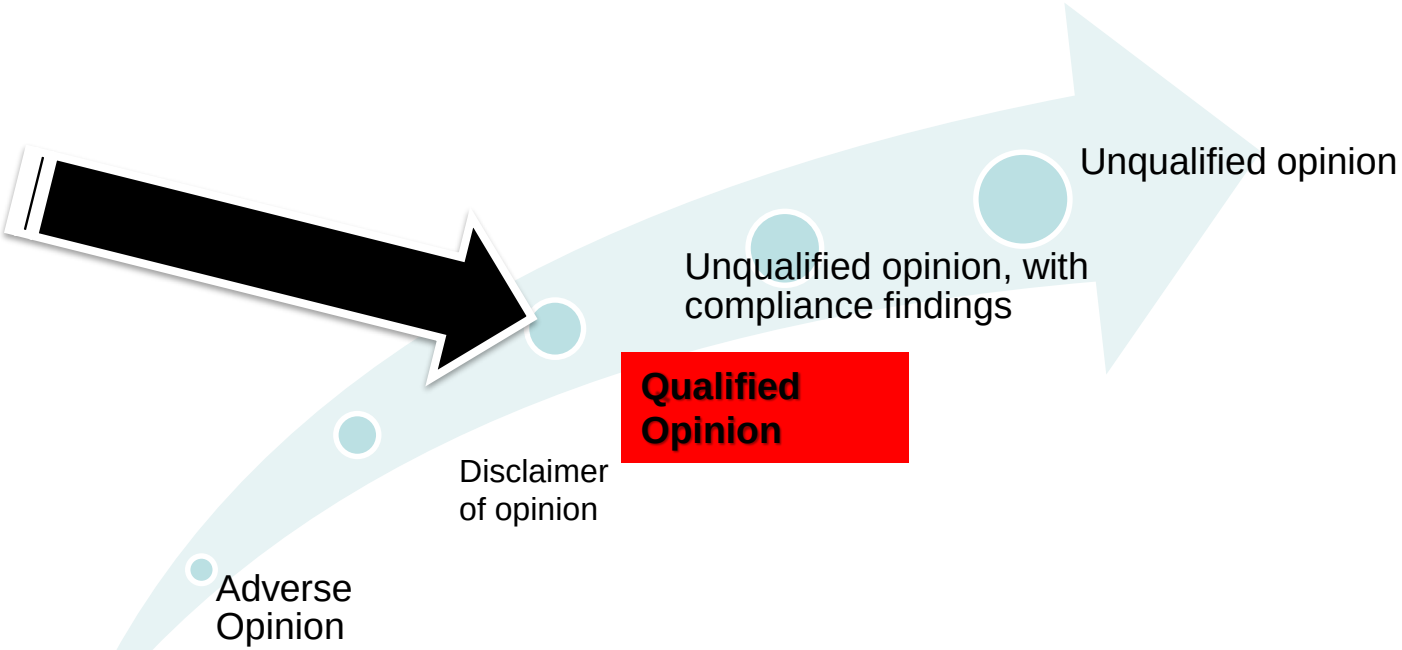
4. ARC Audit Outcome – FY2019/2020

The ARC has received QUALIFIED AUDIT OUTCOMES since FY2016/17



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4.1 FY2019/20 Audit Outcome

ARC received a QUALIFIED AUDIT OUTCOME

The Qualification areas are:

- ❑ Prior Year Land Valuation
- ❑ Commitments
- ❑ Rendering of Services

Compliance with legislation – affected the Auditor's Report:

- ❑ AFS adjusted after submitted to the external auditors
- ❑ Expenditure Management – Irregular Expenditure
- ❑ Consequence Management – IRE and FWE

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4.2. Audit Findings raised [1]

Financial Year	Total Findings	Auditor's Opinion	Other NB matters	Admin Matters
FY 2017/18	**118**	19	99	0
FY 2018/19	**70**	27	41	2
FY 2019/20	**23**	9	14	0

- There has been a significant reduction in the number of audit findings raised
- All the initiatives as outlined on the FY2019/20 Audit Improvement Plan have been implemented

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4.3 Audit Improvement Plan initiatives

ARC continues to aim for a Clean audit outcome

An Audit Improvement Plan is being developed and will be submitted for approval within the Internal Governance structures. The key focus areas are as follows:

1. Implement areas of improvements arising from the 360 Degree Assessment Report and the Culture Survey
2. Strengthening the controls to minimise the recurrence of the root causes which led to the audit findings
3. Review of skills (competencies and appropriate placement) and training provided
4. Interim Financial Statements and interim audit to focus on qualification areas

4.3 Audit Improvement Plan initiatives

ARC continues to aim for a Clean audit outcome

5. Consequence Management – finalise / conclude disciplinary process on IRE and FWE relating to prior years cases
6. Strengthening monthly controls and sign-off by responsible managers
7. Review business process and strengthen policies where necessary, associated delegations of authority
8. Infrastructure – Revaluation of ARC buildings and properties identified for sale / repurposing in line with the Sustainability Plan
9. ICT – Review and implementation of improved Information Technology systems support, including procurement of required new software

Comments or Questions?

Re a Leboha!
Siyabonga!
Ria Livhuwa!
Ha Khensa!
Siyathokoza!
Re a leboga
Siyabulela!
Baie Dankie!
Thank You

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