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At AgriSETA's Career Summit to high school learners, in partnership with the Department of Agriculture (DoA) and Tshwane South TVET College, 05 March 2026

Empowering the Future of Agriculture: A Call to Innovation

Good morning, aspiring leaders, innovators, and future shapers of South Africa!

It is an immense privilege to stand before you today at the AgriSETA Career Guidance Summit.

You are at a pivotal moment in your lives, standing on the cusp of decisions that will define your future and the future of our nation.

Today, I want to talk to you about a sector that is not only vital for our survival but is also brimming with exciting opportunities for innovation, technology, and profound impact: agriculture.

The New Face of South African Agriculture: Innovation at its Core

Forget the old images of farming; today's agriculture is a dynamic, high-tech industry.

South Africa's agricultural sector is undergoing a remarkable transformation, driven by innovation and a commitment to sustainability and efficiency.

We are moving beyond traditional methods, embracing precision agriculture, and leveraging cutting-edge technologies to optimize every aspect of food production.

This shift is not just about growing more food; it's about growing it smarter, more sustainably, and with greater impact on our communities and economy.

In this new era - Agriculture Embodies Diverse Disciplines which is Unified by Innovation

Agriculture is a vast and varied field, encompassing many specialized disciplines, each crucial to our food system. Consider agronomy, the science of soil management and crop production. Agronomists today are not just studying plants; they are utilizing advanced sensors and data analytics to understand soil health, optimize nutrient delivery, and develop climate-resilient crop varieties. They are at the forefront of ensuring our staple crops thrive in changing environmental conditions.

Then there's animal farming, a cornerstone of our agricultural economy. Modern animal husbandry is being revolutionised by technology.

Beyond traditional practices, we now see precision livestock farming where individual animal health, nutrition, and welfare are monitored in real-time.

This includes everything from automated feeding systems to genetic improvements that enhance productivity and disease resistance (we know that currently Foot & Mouth Disease (FMD) is having a significant and devastating impact on our economy, with the country experiencing its worst outbreak in history).

The disease has spread to all nine provinces.

This causes production losses in meat and dairy products making for increased pricing and trade restrictions.

Consider another discipline, such as horticulture, which is the art and science of cultivating fruits, vegetables, flowers, and ornamental plants, is seeing incredible advancements, with controlled environment agriculture and vertical farming becoming increasingly viable options, especially in urban settings.

The Internet of Things (IoT) in Agriculture: Smart Farming for a Smart Future

One of the most exciting frontiers in this agricultural revolution is the Internet of Things (IoT).

Imagine farms where sensors in the soil tell agronomists exactly when and how much to water their crops, preventing waste and ensuring optimal growth.

Picture drones flying over vast fields, monitoring crop health and identifying issues before they become problems.

Envision livestock wearing smart collars that track their health and location, ensuring their well-being and improving herd management.

These aren't futuristic fantasies; they are current realities in South African agriculture.

The IoT applications are transforming agribusiness by enabling data-driven management and precise production, leading to increased yields, reduced costs, and a more resilient food system.

Beyond the Farm Gate

The impact of these innovations extends far beyond the farm gate. A thriving, technologically advanced agricultural sector means greater food security for all South Africans, ensuring that every family has access to nutritious and affordable food. It means the creation of new, exciting job opportunities in fields like agricultural technology, data science, engineering, and sustainable resource management. It also means the empowerment of rural communities, fostering economic growth and improving livelihoods. **By choosing a career in agriculture, you are not just choosing a job; you are choosing a calling to make a tangible difference in the lives of millions.**

The Role of Education: SETAs, TVETs, and Your Future

Our government, particularly through the Department of Higher Education and Training, recognizes the critical role of skills development in this transformation. **Our Minister, Buti Manamela has emphasized the importance of Sector Education and Training Authorities (SETAs), like AgriSETA, working hand-in-hand with Technical and Vocational Education and Training (TVET) colleges.**

The vision is clear: to reposition TVET colleges as central hubs for occupational training and artisan development, ensuring that the skills you gain are directly aligned with industry needs.

AgriSETA, for instance, is actively funding internships and skills programmes in areas like mixed farming systems at TVET colleges, providing practical, hands-on experience that prepares you for the modern agricultural workplace. This collaboration ensures that you, as future professionals, are equipped with the knowledge and practical expertise to thrive in this evolving landscape.

Conclusion: Your Opportunity to Lead

So, as you consider your career paths, we urge you to look closely at agriculture.

It is a sector that offers not only stability but also endless possibilities for innovation, entrepreneurship, and leadership.

It is a field where your passion for technology, your desire to make a difference, and your entrepreneurial spirit can truly flourish.

AgriSETA and our TVET colleges are here to support you on this journey, providing the education and training you need to become the next generation of agricultural pioneers.

Embrace this opportunity - the future of South African agriculture rests in your capable hands.
