

NATURAL RESOURCES

Botswana Ministry of Agricultural Development and Food Security

Botswana Beefs Up Livestock Identification and Traceability with Getac S410 Semi-rugged Laptops

/ Challenge /

Historically, beef production was Botswana's main source of foreign exchange. To this day, beef remains the country's second-biggest export, after diamonds. The Ministry of Agricultural Development and Food Security applies cattle identification and traceability methods nationwide to comply with regulations set by the European Union. However, this can be hard to do in a country with more than 2.5 million cows, most of which are free-range.

/ Solution /

Working with its Gaborone-based partner Keysource Ltd., Getac provided the S410 semi-rugged laptop to the Ministry's Department of Veterinary Services. The Department's inspectors use RFID scanners connected to the S410 to read the cows' ear tags, granting them access to the animals' complete ownership and vaccination records. The S410 is also linked to Botswana's National Database, granting the Ministry oversight of the livestock industry.

/ Benefits /

The Getac S410 balances performance and mobility with rugged protection to help the inspectors complete their mission, even when working in the hot, dry, and dusty environment that is typical of an African ranch. Only farmers who have passed the compliance checks may export their beef. In this way, Botswana can protect and develop its second most important export, while connoisseurs around the world can enjoy top-quality Botswana beef with an easy mind.

/ Ministry of Agricultural Development and Food Security /

"Meat products sold to the EU must comply with cattle identification and traceability regulations. Botswana is able to achieve this with Animal Information and Traceability complemented by the following components: ear tags, RFID scanners, and the Getac S410. We've successfully built a comprehensive database of the livestock in the country. It's like Homeland Security for the cows."

Duncan Gaolebogwe, Sales Director, Keysource Ltd.



Getac S410 Semi-rugged Notebook

/ Challenge /

The Republic of Botswana has one of the world's fastest-growing economies, thanks in part to its diamond production. However, the primary foreign exchange earner in the country's early years was another commodity, and it remains Botswana's second-biggest export to this day: beef.

The raising of cattle touches almost every Botswanan. The country has more than 2.5 million heads of cattle, and a similar number of small stock breeds. Over 95% of Botswana's beef production is exported, much of it to Europe. Beef byproducts are also valuable. For example, leather is sold to the automotive industry in neighboring South Africa.

In 1965, the Botswana Meat Commission was established to promote the beef industry. To booster consumer confidence in its meat products, Botswana has established itself as a leader in the fields of livestock identification and traceability. It takes special care to comply with technical standards and guidelines for cattle identifiers, as laid down by third-party organizations such as the International Committee for Animal Recording (ICAR).

The work of ensuring compliance is important, but it is far from easy. The local cattle industry employs free-range and natural farming methods to uphold the flavor and quality of its beef. Botswana needs a way to keep a close eye on its cattle population, which is estimated to outnumber the human population by two to one.

/ Solution /

Officials from the Department of Veterinary Services, which is part of Botswana's Ministry of Agricultural Development and Food Security, approached Getac and its Gaborone-based partner Keysource Ltd. to find a solution. On the one hand, they have built a comprehensive National Database of all the livestock in the country. On the other hand, they have over 2.5 million free-range cows roaming the countryside. The question is, how to make sure the former can keep track of the latter?

Enter Getac S410, the award-winning 14" semi-rugged

laptop that balances performance and mobility with rugged protection. The S410 offers a selection of Intel® Core™ i3/i5/i7 processors, with the additional option to install a discrete graphic controller for a superior visual experience. LumiBond® 2.0 technology supports enhanced touch functionality, which means the expansive touchscreen remains highly responsive even when you use it in the rain, while wearing gloves, or with a stylus. The S410 runs on Windows 10 Pro. It has up to 1TB of storage, and it can be outfitted with a second onboard SSD for greater speed when running data-intensive applications.

Weighing in at just 2.2 kilograms (without the optional discrete GPU), it is no hassle for workers to take the S410 out into the field. Put the S410 on an office dock or a vehicle dock, and it becomes the last word in mobile offices. The battery life is long enough for a full shift, and an optional second battery can be added to support lengthier deployments. In terms of I/O ports, the S410 has a multitude of flexible combinations, including PowerShare USB, USB3.1 Gen 1 Type-C, and even a second LAN. Connectivity options include Intel® Dual Band Wireless-AC 9260, Bluetooth, and optional 4G LTE mobile broadband. Although it is classified as a semi-rugged laptop, the S410 is MIL-STD-810H certified, IP53 certified, and can resist drops from up to three feet—more than enough to withstand the rigors of outdoor farm work. In the unlikely event of a device malfunction, the local partner Keysource is fully trained and certified by Getac to provide services and repairs.

/ Benefits /

Before being introduced to Getac's line of rugged computers, the Ministry of Agricultural Development and Food Security used large, cumbersome readers, about five to ten times the size of a standard laptop. In comparison, the S410 is much more user-friendly. It is easy to carry and holds up well against the hot, dry, and dusty environment that is typical of an African farm.

With the rugged solution in place, Botswana can sync up the National Database with its massive cattle population. The system is simple yet effective: any farmer who wishes to sell to the

Botswana Meat Commission, which is responsible for exporting Botswana beef, must register their cows and acquire special ear tags from the Department of Veterinary Services. The ear tag contains a chip that tells the bovine's life story: where it was purchased, who its current and previous owners are, as well as its complete vaccination record. Even the color of its hide and the shape of its ears are recorded to prevent identity fraud.

When inspectors from the Ministry of Agricultural Development and Food Security visit a ranch, they bring along the Getac S410 and a handheld RFID scanner provided by Keysource. The scanner is connected to the S410 through a USB port, while the S410 is linked to the National Database through the internet. In this way, government workers only need to scan the cows' ear tags to ensure compliance with international guidelines. They can also update the registry if there are any changes.

With the Department of Veterinary Services acting as the gatekeeper, the Botswana Meat Commission can be confident it is exporting safe and top-quality beef. Besides the European market, Botswana also has its eye on other potential buyers, such as neighboring African nations and China. It may not be as flashy as the diamond business, but it concerns the health and enjoyment of gourmets around the world, not to mention the competitiveness of Botswana's second-biggest export. With Getac's rugged computing solutions, Botswana really brings the beef.

/ Botswana Ministry of Agricultural Development and Food Security /

Botswana's Ministry of Agricultural Development and Food Security is tasked with improving food security and championing agricultural development. It does so through local production, sector diversification, value addition, and other methods. The Ministry implements its mandate through various departments, one of which is the Department of Veterinary Services. The Botswana Meat Commission is one of the Ministry's parastatals.



All pictures shown are for illustration purposes only. Actual product may vary due to product enhancement.