



zambia
Frances Arnold and Dorothy Arnold
Leopard Hills, Lusaka, Zambia

Weathering change

“My husband passing away gave me a lot of food for thought,” reflects Dorothy Arnold, of Silver Rivers Farm, a 400-hectare grain, cattle and dairy farm in Leopard Hills, Lusaka, Zambia. “I had to decide whether to keep the farm or not.”

That was 13 years ago. At the time, she still had her five children to raise and educate. She decided to carry on farming even though she knew it wouldn’t be easy. “I carried on and the farm has sustained me and educated my children,” she says.

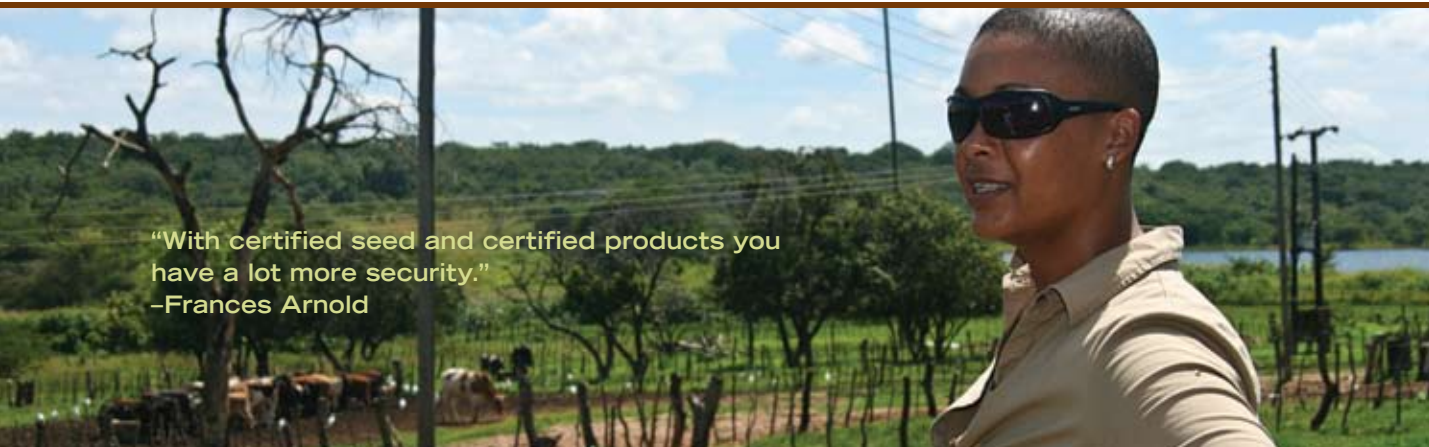
Dorothy Arnold and her late husband worked hard in their jobs as a secretary and a railway worker to save enough money to buy their first 20 acres of Zambian farmland. Even though neither had any formal training in agriculture, over a period of twenty years, Arnold’s

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late husband became one of the biggest and best wheat producers in the area, fulfilling a life long dream of his to turn a hobby into a successful commercial farm.

Three of their children now have successful careers – one in medicine, one in fashion design and the other in the mining industry. The two youngest are studying agriculture. Their father would be proud.



“With certified seed and certified products you have a lot more security.”
–Frances Arnold

Frances Arnold, the youngest daughter, has taken a one-year sabbatical from her studies in tropical agriculture to help run the farm. Someday, she intends to apply her passion for livestock to pursue a career in bovine epidemiology.

Silver Rivers Farm produces about 50 hectares of soybean, wheat and sunflower and they plan to add cotton and grasses to the rotation next year. The remaining land is used for the livestock enterprise, comprising nearly 500 dairy and beef cattle. The farm employs 50 permanent workers and 20 casual staff.

“Farming (has been made) much, much easier.”
–Dorothy Arnold

Silver Rivers Farm is one of only a handful of farms in their area that remains in operation today. “A lot of farmers have actually gone out of business,” says Frances. In 1992, Zambia abolished state grain marketing agencies, government subsidies were removed and both input and output prices were left to be determined by the free market. While change was unavoidable for the nearly bankrupt government, the swift liberalisation created a vacuum the private sector simply couldn’t fill. Tight credit, high interest rates, high debt levels, low liquidity, inadequate transportation networks and a lack of information led to a complete market collapse.

The Arnolds weathered the liberalisation of grain markets by diversifying their farm, limiting their debt load, and employing new agricultural practices that helped to maximise their land’s productivity potential.

Long before the liberalisation trials, the Arnolds had been early adopters of new technology. “Crop protection has not only increased the profitability of the farm but has also helped stave off pests and certain diseases, which can significantly reduce yield and cause financial losses,” says Frances.

Earlier this year, the farm experienced a bad infestation of caterpillars that infected nearly 100% of their soybean crop. “After spraying the crop with an insecticide, the infestation was completely gone in five days, with no visible damage to the crop,” says Frances as she inspects the field. “If the crop had failed as a result of the infestation, the direct socioeconomic impact probably would have meant the loss of jobs to at least half of my working staff,” she says.

The farm also benefits from leading-edge weed control technologies. Dorothy Arnold refers to one broadleaf weed control product recently used in their soybeans. “It was amazing how it rid the field of the broadleaf weeds and left only the soya,” she says. “People who came to visit us thought there was something wrong with our soya. They didn’t realize that it was the weeds that were actually being sorted out.”

Certified seed, seed treatments and inoculants are also critical to the farm’s success. “We purchase treated seed from a Zambian seed company,” says Frances. “We don’t use farm-grown seed because the viability of farm seed is not as high as what you would receive from a certified seed company. With certified seed and certified products you have a lot more security,” she says.

As Dorothy Arnold reflects on the history of her farm, she acknowledges how crop protection products “have made farming much, much easier”. She cites the expertise she has gained from reputable crop protection dealers as a critical factor to her farm’s success. “They advise us how to store, safely apply and properly use the products,” she says.

The Arnolds have succeeded in farming where others have failed. Hard work, sound management, and the willingness to invest in new agricultural innovations have combined to make Silver Rivers Farm a legacy for a husband and father whose dream was to farm.