

## **Cell Phones Can Make a Difference**

by Ralph C. Martin

My understanding of Africa is limited. It seemed to me that until roads were improved and farmers had consistent access to basic resources, agricultural production would be held back. Lack of access to money for buying seeds, tools and arranging transportation to markets is a significant barrier to farm profitability.

I did not see the change agent coming and would never have guessed, even five years ago, what would propel an agricultural revolution in Africa. Cell phones, some of them smart, are making all the difference!

African farmers are learning the real price of seeds and fertilizer and the real market value of their products. They can arrange sales, before making an arduous trip to market to sell exactly what is needed, and at a profit. They reduce their risk of selling too low to a roving broker. The days of going to town and having to let products go for a song or hauling them home again are transcended by real time information.

Women operate many African farms. Phones allow them more time at home with their families and simultaneously strengthen their negotiating position. The cell phone stories remind me of early economics lessons as a kid on the farm, when I learned that it was always better to have two or more potential buyers for my rabbits.

According to the Irish Times, “the microfinance organization Grameen Foundation leases smart phones to ‘community knowledge workers’ in 10 districts around Uganda so that they can receive vital information – weather reports, disease diagnostics, market prices – from a central database in Kampala and pass it on to their neighbours. There are now more than 500 million handsets in use across the continent. In Uganda alone, 10 million people, or about 30 per cent of the population, own mobile phones and are using them in strikingly innovative ways. Mobile banking, for instance, is commonplace and millions of Ugandans pay bills via text message or store money on their phones.”

Smart phones are changing agriculture in Ontario too. Farmers can snap a photo of an unknown weed or pest, send it to a scientist or consultant and get a diagnosis and recommendations about control before the sun goes down. Marketing from the tractor

seat, with current prices and futures information, is becoming more common. GPS coordinates of an unusual pattern in the field can be recorded in order to come back to the same spot for follow-up observations.

I do wonder, however, if having access to plenty of information will always be helpful. Is there a possibility of becoming too dependent on information from somewhere else? My hunch is that information should be synthesized and applied in the context of specific local realities. For example, advice about how much nitrogen to apply to a corn crop must still be understood within the context of the previous crop and how much manure was applied to the field. Will future farmers in Africa or Ontario, not as well grounded on their own land, depend too much on non-contextualized off-farm information?

A colleague from Newfoundland, with an M.A. in English, once told me how literacy had ruined her province. She got the expected rise out of me, grinned just a bit, and then explained how previous generations memorized stories and songs with very practical information about fishing and farming. These ballads, shared for entertainment, also carried the knowledge of past generations for current and future generations. She was sad about our modern propensity to memorize very little, while we access so much, so quickly, but often without context.

My Grampa had a GPS system of sorts. He knew the undulations of his fields and the exact dips where wheat would yield well. As he guided the horses from the running board of the grain drill, he scooped handfuls from the grain box and in graceful tosses, extra seeds arced in the air to land evenly across fertile micro-sites.

In spite of nostalgic recollections and some misgivings, I realize there are opportunities to tap into collective intelligence, with smart phone technology. Over the years, my students taught me that the smartest scholar in the room, is the room. No one person knows it all, including the professor. When there is space for contributions from many backgrounds, perceptions, thought processes and feelings, the lessons from everyone in the room supersede any individual brilliance. With smart phone technology we no longer need the room to accomplish this.

Nevertheless, each individual needs enough common sense to know what applies and what does not apply to particular ventures, in particular places.

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