



**Royal Agricultural Society of the Commonwealth
25th Commonwealth Agricultural Conference
September 15-27th, 2012
Livingstone, Zambia**

**Next Generation Pre-Conference and Conference Report
*RASC Next Generation Forum Leader and Honorary Facilitator:***

Leona Dargis - Alberta, Canada

Sponsored by: Northlands & FarmOn Foundation

Pre-Conference Tour A

Day 1: Saturday September 15th - Anna Playfair-Hannay & Charles Orpwood, United Kingdom

Delegates from all corners of the Commonwealth deflected in Lusaka for the 25th Commonwealth Agricultural Conference 2012 on Africa's role in world food production. We had a warm welcome at our first farm visit, Stanbic 2012 Bull and Game Sale where several key note speakers opened the sale. We were informed about the position of Zambian farming. All keynote speakers reiterated the need for increased food production, especially the the beefs sector increasing from three million to nine million head of cattle across Zambia. With this increase they are conscious about monitoring the cattle quality as they are worried people may import poor stock, affected the national herd.



To maintain the National herd they are strongly encouraging all farmers to register with the national herd book. Another interesting point the Zambian Agricultural Minister state is the importance of stock traceability due to high rates of stock theft. The problem occurs because there is a lack of traceability at the consumer end of the supply chain; therefore increased checks are going to be out in at butchers and abattoirs.

The auctioneer started with a moments silence due to the loss of player in accent rugby match. The mains breeds of cattle included Boran, Santa Gertrudis, Brahman and native African cattle which consisted of forty bulls and two heifers with a top price of fifty-two million KW, or roughly AUD\$10,000. Te average bulk sold for thirty-two million KW (AUD\$6,000). A flighty bull who managed to jump out of the sale ring caused a stir through the delegates.

A game sale followed which was a treat for international gests watching. The sale was conducted on a big plasma screen and some of the lots did not include the capture fee. This included Zebras, Kudu, Impala and other native game species. Following the sale we were treated to a fantastic lunch kindly provided by Stranbic Bank and great hospitality by our hosts. A cocktail reception concluded the day at the Chisamba Safari Lodge kindly given by the RASC.



Day 2: Sunday September 16th - Ruth Redfern, Australia

A visit to Southern Africa's largest publicly listed company greeted pre-conference tour A delegates on the morning of Sunday 16 September. On 46,000ha split across four farms, agricultural company Zambeef employs 4,000 people to grow beef, dairy, pork, broiler chickens and eggs; grow cereal crops and stockfeed; operate a feedlot, a mill, a bakery and eight abattoirs; and produce by-products like leather from the company's own tannery.

A vertically integrated success story, in just 16 years Zambeef has grown to become Zambia's leading provider of food, supplying major supermarket chain Shoprite (via the company's own distribution network), operating 86 retail outlets across the country's villages and controlling a large proportion of the domestic food market. Zambia, like many developing countries across the world, is seeing a rise in its middle class and, as the

population becomes more affluent, a greater demand for affordable protein. The average consumption of chicken in Zambia has doubled, for instance, to 3.5kg per person.

Following a tour of Zambeef's impressive feedlot and dairy operations, the delegates then travelled to the home of Dave Gordon, the first Vice President of the Zambian National Farmers' Union. Over a lunch of local beef and game and a tour of his wheat, barley, mungbeans, tobacco, cattle and game farm, Dave outlined the current challenges facing Zambian farmers - from high interest rates to stock theft and the damage caused by game to the cereal crops (international delegates were surprised to learn that monkeys have a fondness for wheat!) - and the opportunities - high commodity prices, productivity and efficiency gains, access to water and the availability of arable land.



Day 3: Monday September 17th - Chris Stockwell, UK

The third day of the RASC Pre-conference Tour A was another excellent day which took us to Zambezi Ranching and Cropping Ltd (ZRC) in the morning and then onto the Chaminuka Game Reserve Lodge for a game drive in the afternoon.

At ZRC we were met by the Managing Director Graham Rae who gave us an overview of the company, one of the largest privately owned mixed farming operations in the region at 31,000 ha. We started by watching some of the farms 12,000 indigenous African breed of cattle being put through the weekly dip for controlling ticks - a major problem in Zambia for livestock farmers. Later we were met by the tobacco manager who gave us a fascinating background of tobacco production and the industry. We were particularly surprised by how labour intensive the crop is, requiring 590 labour days per hectare to grow. From the tobacco

crop we went to a wheat crop being harvested by two new Cat Challenger Combines, the first Challenger combines brought into Zambia. The afternoon took us for a BBQ lunch at the Chaminuka Game Reserve Lodge where we sampled their own very tasty game meat. After lunch came probably one of the highlights of the tour to date, a game drive around the lodge. This amazing experience allowed us to view lions, an elephant and baby, giraffes, zebra, Sable, hartebeest and secretary bird amongst others.

Day 4: Tuesday September 18th - Manda Foo, Singapore

Day four of the tour began with a visit to Kalimba crocodile farm, the first place in the world to introduce crocodiles into the mix of integrated aquaculture. Mr. and Mrs. Bill Thomas, the farm's owners, breed Nile crocodiles for their skins, which are carefully cultivated and corrected for export to Singapore. Each skin fetches around US\$500. Kalimba farm supplements its main business by rearing pigs and tilapia, producing a small amount of leather goods and maintaining a tourist reptile park, where our group got very close to black mambas and tortoises.

Farm, our afternoon stop, was just round the corner. Its owner Nick Dean recounted the farm's beginnings in 1911 with 1000 head of cattle, and its turning point in 1993 with the collapse of Zambia's command economy. As one of the only farms left open, Ellensdale had little choice but to fill the gaping hole in

food production, and quickly. The farm's first step towards increased productivity was to replace 75 percent of its 280 workers with pivots. More recently, soil mapping and chemical grudging charts are helping Nick understand his land and crops even better, and wheat yields went up from 8.6 tonnes a hectare in 2007 to 9.7 last year, almost 40 per cent higher than the national average of 7 tonnes a hectare. Being talked through the science of precision farming was fascinating. We also passed the village square, playground and health clinic, where the last baby boy was born on 3 August 2012. That commercial farming can continue to improve with new technology is a greatly encouraging observation at Ellensdale today, but it was Nick's final comment that left the deepest imprint on me. With a tinge of sentimentality, he lamented the lost days when many hands in the farm were seen through education, employment, retirement and old ages. With the replacement of humans with much more productive machines, which is necessary, the act of growing food is becoming increasingly faceless. You can't help but wonder how this affects our relationship with food, if it changes it from one of sustenance and nourishment to one of indifference and waste. I venture to say it does, sadly.



Pre-Conference Tour B

Day 5: Wednesday September 19th - Zara Morrison, Northern Ireland, UK

1. ASCZ Showgrounds.

Due to disease outbreak at Mukulaikwa Animal Breeding centre this visit was cancelled. Vice President of the Agricultural and Commercial Society of Zambia (ASCZ) Murray Anderson agreed to show us around their Showgrounds. The Showgrounds are located in the central business area of Lusaka and cover a total area of one hundred and six hectares, fifteen of which are untouched. The 86th Annual show was held in August this year, and attracted more than one thousand exhibitors, eighty-seven being international. Attendance increased by 40% mainly due to a growing middle class one back of strong economic growth.

The show runs for five days and always finishes on the "Farmers Day" holiday. The usual bull sale held at the show was unable to take place in recent years due to foot and mouth restrictions however it is hoped this can be re-established in the future. The Showgrounds are also the home to an equestrian centre and the arenas are used many times during the week for sporting events including rugby and polo. To create income land is leased on a fifty year contract to developers who have created Banks, Hotels, Shopping Centres and other business units. The cattle facilities are also leased out to assist with the movement of cattle throughout Africa. The board of the ASCZ is made up of eighteen members and various committees oversee the show. These people are volunteers and do not get paid however anyone involved with helping during the shows gets paid.



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2. Jimmy Munjanja Farm.

Jimmy Munjanja produces tomatoes to the local fresh market, he also grows onions, maize and cabbages as rotation crops. Jimmy began as a small scale farmer with a quarter of a hectare and over the years has increased to sixteen hectares. With the use of the current seven bore holes strips irrigation is utilized and working closely with the seed and chemical suppliers ensures disease resistance and high yields are achieved. Fertilizer and chemicals are used depending on the individual crop performance.

Jimmy faces many decisions in choosing the correct variety. He must weigh up the financial benefits of a high yield, high maintenance crop against a low yield, low maintenance, and high turnover crop. These decisions are not easily made with the continuous fluctuations in market prices and the difficulty in getting loans from the banks.

3. Rosedale Dairy Farm.

Rosedale is owned by Professor Ben Mweene. It currently hand milks forty-eight cows, mainly Holstein with a few Jerseys. All milk produced is sold to the fresh local market, being close to Lusaka is seen as one of the main advantages as well as the water supply. Milking is done twice daily by six milkers; it takes two hours in the morning and an hour and a half in the afternoon. Cows know their own names when called into milking, this takes approximately two weeks to train. The cows are fed a mixture of maize and high protein grass which is grown on the farm. The resulting twenty-one litres per cow is well above average for small scale farms.

The cows are artificially inseminated and conception rates are usually well above eighty percent. To ensure feed is available throughout the year, maize and grass is continually grown in batches and harvested as needed for each day. This is fed along with brewers grains at occasional times throughout the year. Mastitis is not a problem on the farm as the milkers are observing the cows' udders closely during milking. However the cows are dipped once a week to prevent tick-borne diseases.



Day 6: Thursday September 20th - Kevin Stewart, UK

The first visit on day 7 of the tour was to Kafue Fisheries farm which was an incredibly integrated business involved in fish, pig, cattle, and game farming, with each enterprise reliant on the others in some form.

The fish farm which sold all produce into the local Lusaka market, produced around 900 tonnes per year from 126 ponds, utilising the pigs' manure to 'fertilise' the ponds to create algal blooms which the fish fed upon. The simple but effective system housed the pigs on the banks of the ponds.



In total the farm ran 250 sows which had been built up using high quality genetics imported from Northern Ireland. The group were highly impressed with the cleanliness and quality of the operation, in particular the pigs. This appeared to be down to the business installing the common belief throughout its work force of animal health and welfare, spelt out from the writing on the walls which read 'Treat each sow as an individual!' Following Kafue fisheries the group were taken to the Millers farm which was a mixed farming operation over 2000 hectares in size. In 2014 the farm will celebrate its 100th year which is an indication of the progressive nature and strength of their business. They are currently producing 50,000 cabbages a week for the Zambian market, run 400 head of cattle as well as cereal cropping.

To the delight of the group, we were then taken to an elephant orphanage which the Millers have been involved with in recent years. It was great to see the happiness and healthiness of 4 young elephants, however, on a personal level it was a stark reminder of the widespread impact and issue of poaching in Zambia, and more widely Africa.

Time got the better of us and we were unable to visit 'Mapepe' milk collection centre as planned which is a dairy cooperative that enables small scale dairy farmers to share the advantages of marketing and distribution. The RASC would like to thank them for the kind invitation.

Day 7: Friday September 21st - Courtney Wood, South Africa

The day began with a short bus trip to Anna's Village and we gathered to sing the Zambian national anthem. We were then greeted by Anna, who is the face of inspiration to myself, young and upcoming farmers and people from her village, Joe who is the President of ACSZ and Murray, who is the Vice-president of ACSZ. We were then entertained by the prisons band, Amaobe culture group, and school groups. The cultural differences and unique atmosphere was embraced by the visitors and in a few cases the representatives even joined in the celebrations.

We were then invited to have a look around the stands and also view the different crops grown in the village. Representatives were selected to judge the stands on presentation and also judge the land farmers on performance. The village mainly grows crops such as maize, onion and cabbage and raise animals such as cattle and broilers but have more traditional animals such as goats.

The Next Generation, led by Leona, started putting up posters of their profiles and the NG's were proud to participate in JR's Inside Out Project, representing:

'A showcase of the future faces of Agriculture. We are globally connected and passionate about creating a sustainable agricultural industry. We are CHANGEMAKERS through Innovation and Education.'

A few representatives took a quick tour of the village and farming setups in the area. We thanked our hosts and departed back to the hotel. A good day was had by all.



Day 8: Saturday 22 September - Grace Smith, UK

First stop today was at Mubuyu Farms Limited which is owned and operated by the Lublinkhof family. On arrival, Jesper Lublinkhof gave a brief history and overview of the farm to all delegates and the local tribal chief who had joined the group for the visit. Mubuyu Farm is a large, dynamic operation which consists of 1300 hectares of land farmed intensively. Coffee, wheat and soya beans are grown on a large scale and are milled on-farm in a modern milling facility owned by an associate company, Nyati Milling. A community school and clinic for the large workforce (111 permanent & 566 casual workers) are also located on the farm.

Milling - The mill was started in 1992 after the farm was unable to sell its wheat for a period of 2 years and has expanded ever since with a current capacity of 100 metric tonnes of flour per

day. Flour is principally sold as a pre-mix (flour + salt + fat + sugar).

Coffee - In 1999 Mubuyu Farms diversified into specialised large-scale coffee production and currently grows 270 hectares of the Arabica variety, which is marketed as Munali Coffee. The plants are under drip irrigation where water & fertiliser can be pulsed three times daily. The production cycle commences with coffee cherry picking and continues with pulping, washing, fermentation, drying, cleaning, storing, and

roasting packaging of the coffee bean. In addition to coffee, soya beans (600ha) and wheat are grown (400ha) alongside flower seed production for the European market.

Dams - A special feature of this farm was the dam, built by Willem Lublinkhof in 1984. The main dam has a capacity of 17 million cubic metres although Mubuyu consists of 14 linked dams. This was the first farm which had highlighted a concern over water resources.

After thanking the Lublinkhof family for their hospitality, delegates moved on to Kushiya Farm an integrated dairy, beef, game and cropping operation in Mazabuka. The tour focused mainly on the dairy and sugar enterprises. Mrs Robinson currently milks a herd of 400 Canadian Holstein Freisians, which undergo planned matings using Semex technology and is recognised as one of the top Zambian herds. The dairying is a intensive system with cows being fed TMR, calving AYR and currently averaging 29 - 31 litres/day. Technology is key with electronic identification tags used for shedding and activity meters used for heat detection. One problem in the dairy system is heat stress in the cows; this is being addressed by selecting for smaller cows and the possible installation of misting units and fans.

The Robinsons are also out growers of sugar cane for Zambian Sugar Company and currently grow 443ha of sugar under 9 centre pivots. Currently, production is around 170 tonnes/ha and the sugar cane plants can be utilised for up to 16 years in highly fertile areas and 8 years in marginal areas.

Approximately 300 head of game are killed every year for the meat market, in addition to revenue brought in from photography and hunting safari game drives. 13 species of game are present on the farm. The farm is serviced by a permanent labour force of 120, with 50 seasonal workers employed during the sugar harvest. 5 local farms have come together to employ the harvesters, which move between farms on a rota basis. A school and mobile clinic (twice monthly) is run for all staff and their dependants. Water is supplied to the farm from the Kafue River, via Zambian Sugar who uses the water for cooling in their processing facility.

Mr Robinson also highlighted an interesting small scale dairy development programme he is involved in. Since its inception, the programme has grown from a group of 27 farmers averaging 20 litres, to approximately 400 farms averaging 6000 litres. Presentations were made to the family following the tour after which delegates boarded the tour buses back to the Intercontinental Hotel in Lusaka for the final night of Pre-Tour B.

Day 9: Sunday 23 September - Prue Capp, Australia

The RASC NG visit to Vwapa's farm at Kyauni demonstrates the opportunity for successful farming in Zambia on a small commercial scale. However it did not begin this way, with Vwapa the youngest of 10 children, inheriting the run down farm at the age of 16 when his father passed suddenly.

The 1500 ha farm consists of 300 dairy cattle and approx 600 beef cattle, with 10 workers manually milking 80 cows twice daily gaining yields of 1500 litres per day. The cows are all artificially inseminated by Vwapa himself, with 70% - 80% of cows taking the first time. Various diseases and ticks subject to the Kyauni area require local vets to vaccinate and drench the cattle accordingly as well as the farm dipping their cattle weekly.

Maize is produced on the farm as silage for the dairy cattle and Rhodes grass baled for cattle allowing the farm to be self sustainable. Profits from the milk are reinvested to ensure the future and longevity of the farm. Currently, Vwapa rents 5 houses in town and leases 7 trucks for a variety of purposes.

Vwapa is not only an entrepreneur but a role model for farmers in Zambia and around the world. His ability to gain high yields off minimal input and initial capital through knowledge, determination and passion for agriculture is certainly a quality to aspire to.

Pre-Conference Tour Summary

The Pre-Conference tours provided the RASC NG delegates a rare insight into Zambia's agricultural industry. Currently ranked third in the world for fastest population growth, it is vital that Zambia is able to continue growing and distributing food for their nation in a sustainable manner. From small scale and commercial farming to large commercial and agro-complex, NG's were able to communicate with farmers working within the industry about their particular farming methods as well as some of the challenges they face.



Next Generation Forum Report

The RASC Next Generation is a group of young delegates selected to attend the RASC Biennial Commonwealth Agricultural Conference. During the Conference the RASC co-ordinates a separate Next Generation Forum where future leaders of Commonwealth Agricultural Societies meet together, learn and discuss related issues. The youth selected to be a part of the RASC Next Generation Forum are chosen by RASC Member Societies as those showing the greatest potential to contribute to the long term face of agriculture in their regions, countries and around the Commonwealth. The RASC sees it is vital for tomorrow's agricultural leaders to have networking opportunity with their counterparts from other Commonwealth countries, forming long lasting contacts and friendships. The knowledge and ideas amongst the Next Generation group is put to good use discussing matters and making recommendations to the RASC and its member societies on a range of issues.

The Next Generation (NG) team has organized this year's Forum Theme as: Authentic Perspectives of Tomorrow 'Our Shared Passions and Goals as the Next Generation Agricultural Leaders around the World'. We are proud to have had **68 NG delegates** (34 females and 34 males), representing **15 Commonwealth countries** in attendance at the NG Forum in Livingstone, Zambia.

Morning highlights from the NG Forum included:

- Welcome & Background to RASC presented by RASC Honorary Secretary Michael Lambert
- NG Strategic Plan Overview
- NG Delegate Presentations – Forum Discussion about the Challenges and Successes with Youth Groups
- Inspiring presentation by Mildred Kasonde on Young Leaders in Zambia
- NG Report on 3rd NG Understanding & Assistance Mission to Singapore/India given by Breyton Milford (South Africa) & Mcloud Kayira (Malawi)



A working lunch then took place where the Next Generation Delegates watched Hans Rosling's TED Talk on Global Population Growth. Each group then discussed the topic of **global food production & distribution needs** for the future and about the **roles** in which the Next Generation will have. As a result each group mentioned the importance of **education**. To minimize waste, to continue reinvesting in research and development along side with building proper infrastructure was also highly talked about. The group continued to discuss how listening to consumer demands is important and that there is a social as well as professional side to agriculture that we must represent as young leaders.



A refreshing start to the afternoon included a presentation on social media given by Will Prichard followed by a discussion on the importance of raising awareness using current media streams.



The CEO's of Member Show Societies then joined the NG's for a session themed 'Change is Necessary' Three questions were asked and in mixed groups discussions took place and the following key points were raised:

1. How has the role of Agricultural Societies changed and what opportunities are there for the future?

Show societies originally began as exhibits for farmers and today the show focuses more on education and entertainment. Transition from traditional to commercial agriculture has taken place and shows are becoming age inclusive. However some shows have had a fear of change.

2. What role will the Next Generation play?

Shows societies have perceived the Next Generation to be considered as the middle ground between those they are trying to educate in the agricultural community. The shows recognize that they need to be innovative and need to instil 'new blood' on their boards and committees.



3. What can we do today to enable the Next Generation to be the change needed? Everyone agreed that a joint effort is needed from both parties to reach tangible results in moving forward. The CEO's have confidence in the Next Generation to change perceptions and can demonstrate the way of the future. It is important that together we promote the traditions of the show and to also promote what the show society stands for and help the society in achieving their goals.

Commonwealth Agricultural Conference NG Report

NG delegate conference highlights include:

- Joining together as a 64+ NG group on the first night for Dinner in the Bush.
- Attending the conference and learning more about Farming in Zambia, World Agriculture Day, and Show Society Day
- Sunset cruise on the Zambezi River – where the NG's met HRH Princess Royal
- Dancing after Dinner at the Boma
- Collaboration between Zambian young farmers and the Agricultural and Commercial Society of Zambia (ACSZ) to start a Next Generation Group
- Many more individual lessons learned and global networks created...

NG conference presentation highlights:

- Welcome and Introductions to NG Presenters:
 - ✓ Leona Dargis – Honorary NG Facilitator – Northlands, Canada
 - ✓ Matambula Mwale – Zambian NG Leader 2012, Zambia
 - ✓ Breyton Milford – Agri-Expo, South Africa
 - ✓ Chelsea Wan – Kranji Countryside Association, Singapore
 - ✓ Will Hyde – Royal Bath & West of England Society, UK
 - ✓ Mcloud Kayira – Marshal Papworth Scholar, Malawi
 - ✓ Will Prichard – NG Mission Delegate, Wales UK
 - ✓ Toni Jericho – Agricultural Societies Council of NSW, Australia
- Review of Next Generation History (since Calgary 2006)
- RASC NG Understanding & Assistance Mission to Singapore & India 2011 Report
- NG Forum Highlights
- Message from Matambula Mwale, Zambian NG Leader
- Featured InsideOut Project Zambia 2012 Video (<http://www.youtube.com/watch?v=vILEtkfm9IQ>)
- Presented HRH Princess Royal with a signed copy of the 3rd NG Mission Book



NG Mission Book Links

<http://www.blurb.com/b/1166387-rasc-2nd-next-generation-mission>

<http://www.blurb.com/b/3471544-rasc-3rd-next-generation-mission>

In conclusion to both the Pre-Conference Tours, the Next Generation Forum and the Conference, I can honestly say that they have provided a 'once in a lifetime' learning opportunity and has created an impact on Zambian agriculture. The NG delegates have no doubt developed new friendships across the Commonwealth. The group projects have strengthened their skills and the group discussions have grown their perspectives. We are looking forward to our next journeys to take place within the RASC NG Network where the planning for the 4th Understanding & Assistance Mission has already begun and for the next NG Forum during the 26th Commonwealth Agricultural Conference planned to take place in Brisbane, Australia 2014.

