Climate Smart Brachiaria Program Annual Review Meeting

The annual review meeting of the Climate smart Brachiaria program was held in Kenya Agricultural and Livestock Research Organization (KALRO) Embu from 2 to 4th May 2016. The participants were drawn from KALRO (Katumani, Embu, Matuga, Kitale and headquarters), Bioscience eastern and central Africa-International Livestock Research Institute (BecA ILRI) Hub Nairobi, ILRI Ethiopia, International Centre for Tropical Agriculture (CIAT) Colombia, Rwanda Agricultural Board (RAB) and Grassland Technology Ltd and AgResearch Ltd, New Zealand. The overall objective of the program is to increase animal productivity and incomes. The aim is to achieve the increase through enhanced feed availability using climate smart Brachiaria grasses in the target countries which are currently Kenya and Rwanda. The program uses a multidisciplinary approach where a team of researchers, extension officers and farmers work together to identify and disseminate Brachiaria cultivars.

The meeting started with a field visit in Nyeri County. The objective of the visit was to familiarize the program team members with the farming systems where Brachiaria grass is being out-scaled in the central highlands of Kenya. The following were visited:

1. Mr. Wanjohi’s farm in Mathaithi, Karatina who evaluated three Brachiaria cultivars (Piata, Xaraes and Basilisk) and plans to expand Piata in his two acres farm. Mr. Wanjohi says that he no longer buys hay for his dairy cattle which has reduced his cost of milk production. The grass has attracted the attention of neighbouring farmers who have requested him for seeds. He was shown how to use splits for expansion to his new plot and to share with neighbours since seeds are in short supply and are expensive.

2. Kieni Dairy Products Limited (KDPL) is involved in value addition of milk and is privately owned by farmers. It receives milk from seven Farmers’ co-operative societies (with about 6000 active members) for bulking, cooling and sale. It handles about 24,000 litres daily against a cooling capacity of 40,000 litres. They maintain a demonstration plot of maize (H628), beans, sorghum, Rhodes grass, lupin and four Brachiaria grass cultivars established in collaboration with KALRO. These are Piata, Xaraes, MG4 and Basilisk. Two hundred and sixty four (264) farmers were issued with Brachiaria seeds to plant in their own farms. These farmers were trained on forage and seed production and they are expected to train other farmers.

3. The team also visited Mr. Robert Kaniaru, who is a member of Kieni dairy. He indicated that he learnt about Brachiaria grass through Seeds of Gold and used the contact given in the article to get Brachiaria seeds from KALRO Katumani. He established the grass in about 0.3 ha and had harvested some seed during the visit.

After the official opening by the Deputy Director General - Livestock, Dr Joseph Mureithi on 3rd May, the meeting continued with presentations from all the participating institutions starting with the work at the BecA-ILRI Hub and Grassland Technology Ltd/AgResearch Ltd on endophytes to feeding trials in Rwanda and Kenya. Endophytes (fungi or bacteria) association with Brachiaria has been linked to enhanced biomass production and tolerance to drought. Brachiaria has also been found to be more tolerant to drought than Napier grass due to its elaborate root system and upright leaves. The main Brachiaria accessions being promoted in Kenya include *Brachiaria brizantha* cvs, Piata, Xaraes and MG4 and *B. decumbens* cv. Basilisk and their yield ranges from 6 to 12 tons DM per hectare with a crude protein content of 8-17%). Currently there are over 4000 farmers in various Counties growing Brachiaria.
Results from a farmer managed feeding trial in Rwanda indicated that Brachiaria has the potential to increase milk yield by 30% and meat production by 20% while improving soil quality. In Kenya, farmers feeding Brachiaria recorded an increase in milk production of 15-40% in Kangundo, Machakos County. A feeding trial conducted at KALRO Mtwapa in coastal lowlands showed that milk yield from cows fed cvs. Piata or Mulato II was comparable to that of cows fed Napier grass. It was clear from the review meeting that Brachiaria can contribute to dry season feeding through conservation into hay and silage. There is need to verify the conservation technologies ahead of the farmers who are already growing the grasses.

Participants from KALRO

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