



EASEED

Africa's Best

East African Seed Co. Ltd.

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MD's Message:

On behalf of EASEED group company's management and staff, I am pleased to present the 28th edition of EASEED newsletter.

African population accounted for 9 % of the world's population in 1950 and is likely to have 40 % of all humans (and half of all children) by the end of the century (UNICEF). This will have serious implications on food security and poverty in the region. This calls for rapid developments in agriculture aimed at increasing productivity to feed the hungry mouths without degrading the environment. The continent needs to increase the food production by four times in order to be self sufficient to feed the growing population. This can only be achieved by high investment in agricultural research, irrigation and rural infrastructure. There is a need to develop more heat tolerant and drought tolerant varieties which can withstand the vagaries of weather.

Further, greater investment is needed in educating and upgrading the technical skills of small holder farmers in adoption of Good agricultural Practices (GAP), including use of improved varieties and overcome the ill effects of climate change. EASEED is fully committed on breeding improved, drought and disease tolerant varieties through our research programs. Further, we are also educating the farmers on adoption of improved crop technologies through our qualified, skilled field staff across East Africa. Our Top Customers Meet in Thika during February 2015 with live crop demos was an excellent example of EASEED's commitment in educating both agro dealers and farmers in improved crop production technology. We are actively collaborating with various national and international Research Institutions in accomplishing this and helping the farmers in ensuring prosperity and food security in the region.

In developed countries, the Governments support their farmers with massive subsidies, while in Africa, farmers are denied of such benefits. It is unfortunate that most farmers in this region are denied of the modern agricultural technologies, which are benefitting the farmers in developing world. There needs to be a level playing field for the farmers across the world to be competitive in the global market.

We are grateful to all our esteemed customers for their relentless support and welcome your suggestions on improving our products and services enabling us to serve farmers in the region and beyond.

Jitu Shah



“Committed to Provide High Quality Agricultural inputs with Responsive and Friendly Services...”

- **EASEED** mission statement

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New Products

Cabbage: IMARA F1

- Widely adaptable, easy to grow hybrid maturing in about 90 days.
- Heads are uniform, thick flat round, deep blue green colour, very compact weight about 4-5 kg.
- Has good heat and cold tolerance.
- High tolerance to black rot and Intermediate resistance to fusarium yellows.

Maize Hodari (MH 501)

- Medium maturing hybrid (120 – 140 days)
- Suitable for medium altitude areas of 1100 -1900 metres.
- Excellent yield 30-35 bags/acre.
- White semi-dent grains
- Drooping of cobs during maturity to prevent ear rot.
- Tolerant to GLS, Rust, MSV & blights

Maize Ahadi (WE 1101)

- Drought tolerant, medium maturity, 120 -130 days
- Suited for low to medium altitude areas of 1000 -1600 metres
- White semi dent grains,
- Good husk cover on the cob that protects the grain from damage by birds, maize weevils and grain rotting due to water sipping into the ear in the field.
- Yield potential 25-30 bags/acre
- Resistant to Turicum leaf blight, GLS and Maize streak virus.

Watermelon Icebox

- Very early maturing hybrid about 65-70 days
- Fruits are oval in shape with an average fruit weight of 2-3 kg.
- Rind is dark green colour with green stripes
- Flesh is very crispy and firm
- Very High TSS 13.5 – 14.0 %
- Very good keeping quality, good rind thickness
- suitable for long distance transport

INDIGENOUS VEGETABLES

(SPIDER PLANT, BLACK NIGHT SHADE, ETHIOPIAN MUSTARD, CROTALARIA)

- These vegetables are well adapted to harsh climatic conditions and easy to grow
- They have a short growth period, ready for harvest in 3-4 weeks
- They contain high levels of minerals (calcium, iron and phosphorous), vitamins and proteins
- Contains substantial amounts of chemicals as anti-oxidants
- These anti-oxidants help promote optimal health by lowering risk of occurrence of chronic diseases like cancer



Maize field affected with MLND

Maize Lethal Necrosis Disease (MLND)

What is MLN?: MLN is a viral disease caused by synergistic interaction of Maize Chlorotic Mottle Virus (MCMV) and Sugarcane Mosaic Virus (SCMV) or other poty viruses of the same group like MDMV or WSMV. In eastern Africa, MLN has so far been reported to be caused by combination of MCMV and SCMV infection. MLN is emerging as a big threat in Eastern Africa and neighboring countries.

MLN Symptoms: Mosaic and severe chlorosis/mottling of the leaves usually starting from the base of the young leaves and extending upwards towards leaf tips; Premature drying of cobs, with mottling symptoms; Stunting and premature drying of plants; Tip-die back (Dead heart) resulting in no pollen production; Poor seed set and shriveled ears.

How MLN is transmitted?: MLN causing viruses are transmitted by insect vectors such as Corn thrips, Corn flea beetle, cereal leaf beetle and corn rootworms from infected maize plants or other co-hosts of MCMV and SCMV.

Control measures for MLN: Most of the commercial maize varieties in Kenya were found highly vulnerable to MLN. MLN management requires a multi-facet approach, including MLN resistant maize varieties, certified maize seed production in MLN-free areas, good crop husbandry practices, crop diversification/rotation with legumes, avoiding continuous cropping of maize, providing a maize-free period to break the virus cycle.

MLN-Free Seed Production: Is possible by seed production in MLN free areas, planting healthy seeds, treat the seed with insecticide such as clothianidin, thiamethoxam, imidacloprid or imidacloprid + thiodicarb before planting, timely planting, crop rotation, roughing and destruction of infected plants, insect vector control by regular spray of appropriate insecticides, proper weed control measures to control the insect vectors.

Breeding for MLN resistance:- EASEED has a strong breeding program on developing MLN tolerant/ resistant maize hybrids. One of our hybrid in NPT at present is showing high level of tolerance to MLN. We are closely working with CYMMYT and ASARECA in developing and promoting MLN resistant hybrids in the region.

Recent Trends in Biotechnology in Agriculture.

Biotech Crops are grown in more than 181m ha in 2014 in 28 countries by 18m farmers. GM technology adoption has reduced chemical pesticide use by 37%, increase crop yield by 22% and increased farmers profit by 68%. Yield and profit gains are more in developing countries than in developed countries. In past few years, Insect Resistant (IR) Bt Brinjal in Bangladesh, Herbicide Tolerant (HT) Soybean in Brazil, Drought Tolerant (DT) sugarcane in Indonesia, Innate Potato (with 50-75% lower levels of acrylamide, a potential carcinogen and fewer spots due to brushing) in USA, Reduced lignin HarvXtra alfalfa in USA, Enlist Duo (2nd generation herbicide tolerance - dual-action/weed management) Soybean in US, and Golden Rice (High in Vitamin A) in The Philippines are in cultivation or advances stage of testing.

Status in Africa: Africa continues to make progress in 2014 with Sudan increasing its Bt cotton area substantially to 90,000ha by ~46%, with South Africa and Burkina Faso marginally lower. An additional seven African countries, Cameroon, Egypt, Ghana, Kenya, Malawi, Nigeria and Uganda have conducted field trials on rice, maize, wheat, sorghum, bananas, cassava and sweet potato. The WEMA project is expected to deliver its first biotech stacked drought tolerant (DT) maize with Insect resistant (Bt) in South Africa as early as 2017, followed by Kenya and Uganda, and then by Mozambique and Tanzania, subject to regulatory approvals.

Contribution of biotech crops to Sustainability: Biotech crops are contributing to sustainability in the following ways:

- ⇒ Contributing to food, feed and fiber security and self sufficiency, including more affordable food, by increasing productivity and economic benefits sustainably at the farmer level.
- ⇒ Conserving biodiversity, biotech crops are land saving technology
- ⇒ Contribution to the alleviation of poverty and hunger
- ⇒ Reducing agriculture's environmental footprint
- ⇒ Helping mitigate climate change and reducing greenhouse gases.



Biotechnology in Agriculture

Focus on Tanzania & Uganda

Hybrid vegetable production: A new path for better income in Tanzania

In the village of Ilaji, Mbarali district- Mbeya region, farmers were excited for their time had come for earning handful income in hybrid Tomato production. An event showcasing Nuru F1 variety of Tomato production technologies guaranteed to produce better yields, with abundant quantities.

The event, formally known as Farmers' Field Day, by setting up demonstration plots in Mbarali district, an area with lots of potential for horticulture farming and a notable amount of irrigation schemes, EASEED was able to attract farmers from around 15 neighbouring villages of Igalako, Ndaji, Utolo and Chimala just to name a few.

The demonstration event featuring participation of around 250 farmer's, agronomists from EASEED and TAHA. Some of the technologies showcased were seedling trays, raised beds, crop spacing, use of quality seeds and farm hygiene. This was a learning opportunity for farmers which opened up their minds to better possibilities of being successful in the horticulture sector. But of course every good thing has its own set of challenges. The farmers were able to lay out their obstacles in the sun such as inadequate technical support, unavailability of quality seeds & pesticides and water scarcity especially during the dry season. Farmers turned to EASEED and TAHA in solving these challenges.

The Farmers' Field Day in Mbarali came at a very important time because EASEED have set aside the Southern Highlands as one of the hotspots for hybrid horticulture crops production like Tomato-Nuru F1, Bingwa F1, Watermelon-Sukari F1, Chinese cabbage-Green rocket F1 etc. Farmers in this area are set to benefit from the services delivered to them; and they can, in return, produce more horticulture products with high quality for both local and international markets



MECHANISED FARMING

UGANDA FARMERS EMBRACE MECHANISED FARMING FOR IMPROVED PRODUCTIVITY

According to 2014 census report, Uganda's population is estimated at 34.9 million with over 80% living in rural areas. In 2014, Uganda had 202 urban centers with a total urban population of six (6) million. The report further estimates an average annual growth rate of 3.03 per cent and at this rate ,the population of Uganda is projected to increase to 47.4 million by 2025. This means an increased demand for food in Uganda and the world over.

To meet this ever growing demand for food, farmers must adopt improved technologies such as hybrid seeds which are high yielding with better drought tolerance, uniform and early maturity as well as better pest and disease tolerance. **Red Queen F1** an **Onion hybrid** from EASEED has done exemplary well for farmers in Mubuku Irrigation scheme, in Kasese, with high yield, early maturity with uniform bulbs as well as disease tolerance. To complement on the hybrid technology, farmers are investing in mechanized farming to improve on efficiency of production and also to reduce on post-harvest losses.

COLLABORATION WITH NGOS - SIGNIFICANT ROLE IN TECHNOLOGY TRANSFER

EASEED group has over the past tailored its products and services towards bringing total solutions to the farming communities in addressing their past and emerging challenges. To drive her quest to reach out to as many farming communities as possible, EASEED has embarked on an ambitious strategy of collaborating with like-minded entities in the private and NGO sector.

For instance, through the collaboration with ZOA Uganda, EASEED / Agriscope has been able to demonstrate to the farmers in West Nile on carrying out land preparation without necessarily ploughing the land.

Through ZOA's Farmers' Resource Centres (FRCs) initiative, farmers have been trained on how they can save money and increase yields through the use **Willosate 360SL** to clear the weeds and thereafter proceed with planting **KH500 – 43A**. Through these engagements, there has been a notable increase in usage of good quality inputs by farmers and farmer groups since the awareness has enlightened them about the benefits and best practices. One Ms. Atyeronimungu Priska, the Vice Chair Person of Arata-rach Farmers' Co-operative Society Ltd in Nebbi District praised the performance of **KH500 – 43A** after using **Willosate 360SL** for clearing the weeds before planting as demonstrated in their FRC .

EASEED is promoting sunflower through the collaboration of Vegetable Oil Development Project (VODP2) based in Arua, Gulu, Lira and Mbale hubs. The project also supports the promotion of growing other oilseed crops such as Sesame, Ground nuts and Soybeans.

Agrochemical/Agriscope



Farmers seminar at Nyanza in Kenya. agronomist explains to the farmers the uses of Agriscope products

In this release we shall discuss on the African vegetables particularly the African spinach, PRODUCED AND SOLD BY **EAST AFRICAN SEED CO. LTD.**

African spinach also called **Amaranthus (TERERE)** is an indigenous vegetable in East Africa. They are broadly categorized into grain and vegetables.

The grain and vegetable types are utilized as flour and leaves respectively. Nutritionally they provide calcium, iron, vitamin A, vitamin C and protein. **Amaranthus** is adapted to a wide range of climatic conditions.

This crop is easy to grow in fertile soils with enough moisture and the crop gives high yields. This indigenous crop is nutritionally superior to exotic ones such as tomatoes, cucumber and cabbage. Farmers normally use the harvests which are gaining popularity in many homesteads. It is believed the flour and leaves of this crop is used to manage most the terminal diseases and ailments.

The flour is either cooked as **UGALI** or as thick porridge or served alongside other dishes.

Amaranthus is grown by direct planting in furrows 30cm apart and later thinned to 15cm within the row. This close spacing is possible because the **Amaranthus** root system does not spread. The seed rate is **1.0 Kg per acre** and application of 7-10 tons of manure is recommended.

The manure should be mixed with **RAPIGRO** organic fertilizer well into the soil before sowing. The organically produced crop is harvested by selective picking of leaves which may be blended with other indigenous vegetables or utilized alone. For **Amaranthus** grain production mature grains should be harvested, dried in the shade for five days and in the sun for one day. **Amaranthus** yields 500 Kg of grain and 120 bags of leaves per acre.

To increase germination percentage the seeds should be treated with **SEED KING** and **CONCORD 20 SL** before planting.

- ◆ **TOPAZ 25 EW** fungicide from Agriscope can be ideally used to control fungal diseases like rust and black spots in order to get clean and healthy leaves.
- ◆ Insect pest for this plant include cutworms, aphids, and leaf miners which can be controlled with **ALPHASCOPE 10 EC** and **VERKOTIN 1.8 EC** respectively.
- ◆ For foliar nutrition, use **VEGIMAX** and **MAZAO SUPER VEGTATIVE** at the recommended rates. One should also use **POLLYKING** incase the farmer is interested in seeds production.
- ◆ The plant matures in 35 to 60 days after planting.

RAPIGRO Organic Fertilizer

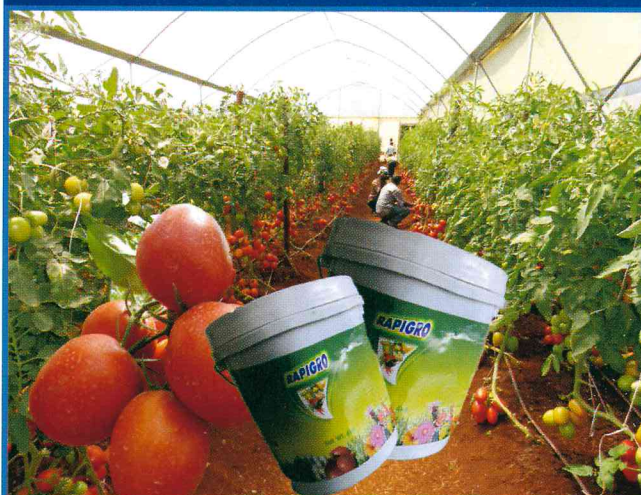
RAPIGRO has been well accepted by the farmers, being organic in nature farmers are taking the advantages of using the same to improve their soil condition.

The beauty of **RAPIGRO** is that crops are able to sustain in the harsh weather conditions compared to chemical fertilizers alone. This is the second organic product by Agriscope after **VEGIMAX** was launched long time ago.

The farmers using **VEGIMAX** get reward for their crops because again they are able to survive under the severe dry climatic condition compared to inorganic foliar feeds. In **AGRISCOPE** we provide agri equipment's and the knowhow to our farmers through field trainings to enable the farmers' increase the productivity and self reliance.

This is possible through our well trained agronomists now covering most of the agricultural land in Kenya. We are happy that the farmers get value for their money after using our products with higher yield. We are happy to be associated with the farmers who are improving their livelihood by using our products.

As we enter in to the wheat season in some parts of the Rift valley we have introduced three selective herbicides for wheat **AGRIMINE 2-4-D**, **FENOXA 6.9 EW** and **CLODEX 100 EC**. The products will be used at different stages of the crop. At the same time the fungicide **TOPAZ 25 EW** will control fungal infection like rust, powdery mildew and others infectious disease.



Tomatoes treated with RAPIGRO


Agriscope
An Integrated Solution
Provider for plant protection

EASEED Events



Top customers' Meet 2015 at Thika Farm Kenya in pictorials



Demos showcasing EASEED Products



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