



# EASEED®

## Africa's Best

East African Seed Co. Ltd. Newsletter Vol. 21 January 2012

### MD's Message



### INTERGRATED PEST MANAGEMENT



Welcome to the 21st Edition of **EASEED** Newsletter and best wishes for 2012. I wish to most sincerely thank all farmers and stakeholders for walking with us as we strive to offer the best in the industry. We have witnessed greater challenges in all sectors ranging from global economic recessions, political instabilities to droughts in many regions hence greatly affecting availability of seeds and increased costs of doing business.

We have kept our promise of offering the best in terms of quality at most affordable prices even under the high fluctuations of local currencies. Changes in climatic conditions have propelled our research & Development department and Product Development to accelerate their efforts in bringing up new products that will produce under limited moisture and with high tolerance to diseases and pests. This year alone, we have registered a number of varieties for NPT's in various countries through various institutions for evaluation and possible releases soon. We believe the solution lies in these key varieties and we urge farmers to adopt emerging technologies for better returns.

I wish to thank our government for the investment they are putting in Agriculture especially on Irrigation and Research for seed production. We are partnering with them to ensure seed production throughout the year for we believe that food security lies in availability of certified high quality seeds. I also wish to assure our farmers that we will continuously protect their interests through various forums and organizations tasked with policy and technology transfer.

Being in the National Biosafety Board and preparing to take over as the president of African Seed Trade Association (AFSTA), I want to assure all stakeholders of better times in regional trade and technology transfer. I also wish to appreciate the feedback and suggestions we are continuously receiving and this will always help us to improve in service delivery.

**JITU SHAH**  
MANAGING DIRECTOR

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Integrated pest management (IPM) is an environmentally sensitive approach to controlling pests that does not rely totally on use of pesticides. IPM depends on frequent monitoring of plants and pests so that control strategies are used only when and where needed. Many scientists consider IPM a decision-making process that assesses pest status and determines logical and environmentally sound management tactics. A variety of control methods; cultural, mechanical, biological, and chemical may be employed.

**Cultural control** is the manipulation of the environment to avert serious pest damage, like the following:

**Water Management.** If for some reason you intend to change the moisture profile in the landscape, consider the impact it may have on plants.

**Induced Competition.** This can be accomplished by establishing dense groundcovers that can reduce weeds by outcompeting them.

**Remove Plants.** Rouging is a perfectly viable cultural tool. If a plant consistently has pest problems, consider replacement with a more dependable species.

**Modify the Environment.** Maximizing air circulation in tree or shrub canopies through pruning or by plant spacing can be another way to avoid serious pest buildup.

**Biological control** is the use of living organisms, either native or introduced, to suppress pests below levels of serious economic or aesthetic damage. There are two general strategies employed in biological control: conservation, and augmentation.

**Conservation** is protecting and enhancing the biological control agents that are already present. To protect naturally occurring biocontrol populations, avoid unnecessary spraying and broad-spectrum pesticides. One conservation practice is to use selective pesticides. One such material is the bacterial insecticide *Bacillus thuringiensis*, which now comes in various strains to control true caterpillars, certain mosquitoes, and leaf-feeding beetles. This material kills only target pests and has no direct effect on bees or other beneficial creatures.

**Augmentation** adds to the established base of beneficial or restores a decimated population. Insect-eating nematodes are now commercially available and can manage pests such as root weevils. When using these beneficial agents, it is critical to pay attention to criteria for successful release (e.g. time of release, weather conditions, and food availability).

**Mechanical control** can be achieved in many instances and is most effective if implemented when pest populations are low. Some examples include pinching leafrollers, washing aphids off leaves with a garden hose, pruning out tent caterpillars and fall webworms, and various destructive barriers for slugs and weevils. Modified materials like traps can also be of great use. Mechanical control of weeds can be quite effective early in the season and can be accomplished through simple hand pulling or shallow cultivation. Various types of mulches (bark chips, geotextiles etc.) can suppress weeds. Certain plant diseases can be suppressed by pinching off diseased parts and dispatching them. This limits re-infection and the spread of the disease.

**Chemical control** Although there are pest problems that may require the use of a broad-spectrum pesticide, it is the philosophy of IPM practitioners to consider more selective materials first. A number of selective products are available, including horticultural oils, insecticidal soaps, and botanically derived pesticides, such as neem seed extracts, pyrethrum, and rotenone. Remember, pest vulnerability to these or any material depends on life stage and exposure. For materials to be effective, we must accurately assess the "window of opportunity" and time application.

# Product News

## New releases from **EASEED**<sup>®</sup>



### **CABBAGE FANAKA F1**

After planting cabbage Fanaka F1 in June, Mr. Edward Ndaba from Kinangop (Njambini) was very happy even after the drought that persisted. He notes that Fanaka F1 exhibited uniqueness by forming compact heads even in extreme water stress. Farmers in Kinangop have recorded an average of 6kg heads which are very uniform, compact and showing tolerance to most diseases and pests unlike other varieties. Its acceptability in the market has been very encouraging. Mr. Ndaba thanks **EASEED** for availing cabbage Fanaka F1 to Farmers which has become the cabbage of choice to most farmers.



### **MAIZE KH 500 - 43A**

A medium maturing hybrid maize variety suitable for growing in medium to high altitude areas, Yields about 28 – 32 bags per acre under good crop husbandry. Plants produce two cobs which have tightly packed semi flint grains with good husk cover to prevent rotting. Green coloration of leaves is less in early stages of growth and increases as the plant matures. Its a sweet tasting maize with tolerance to maize streak virus, its heavily leafed and thus is a good dual purpose variety for fodder and food. Recommended for planting in transitional areas in central and upper areas of eastern and also parts of western Kenya as well as neighbouring countries with similar ecological conditions.



### **WATER MELON SUKARI F1**

Mr. Mwangi and Mr. Torotich from Kerio Valley are excited farmers after the good harvest from watermelon Sukari F1. Its acceptance in the market by consumers has been due to its early maturity, sweet taste and deep red color. He has recorded an average of 10kgs per fruit. They are very happy to have recorded a harvest of 20tons/acre. Sukari F1 has also shown high tolerance to most common diseases affecting cucurbites. They advice farmers to go for Sukari F1 as it produces uniform big fruits with uniform growth compared to existing varieties.



### **COLLARDS MFALME F1**

Ministry of Agriculture officials from Trans-Nzoia could not hide their joy as they hailed **EASEED** for availing Collards Mfalme F1 to our farmers. Mr. Kariuki noted that it's a very prolific crop with soft tender leaves that have an appealing dark green color and are sweet to taste. Thanks to **EASEED** for collards Mfalme F1 as farmers can leap profits from its high yield, long harvesting period and tolerance to a wide range of problematic diseases and pests. They encouraged farmers to embrace this hybrid collard (Mfalme F1) for more returns.

# EASEED® Events



H.E President Mwai Kibaki (Kenya) admires **EASEED** high quality Hybrid packets at A.S.K Nyeri Show.



Uganda's President H.E Yoweri Kaguta Museveni admires **EASEED** Hybrid Maize KH500- 43A at Jinja International Show



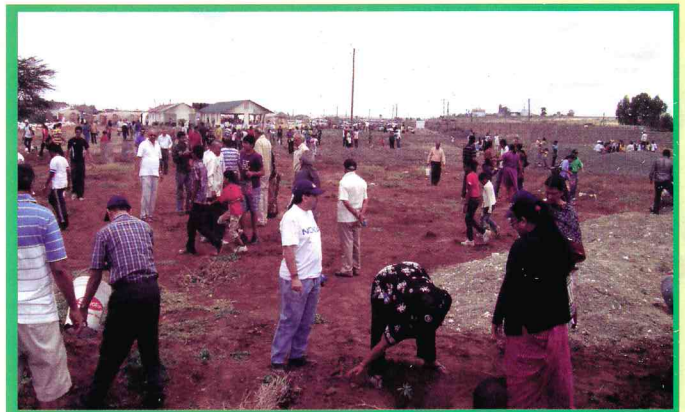
H.E President Mwai Kibaki acknowledges Tomato Nuru F1 High Yields at A.S.K Show, Nyeri.



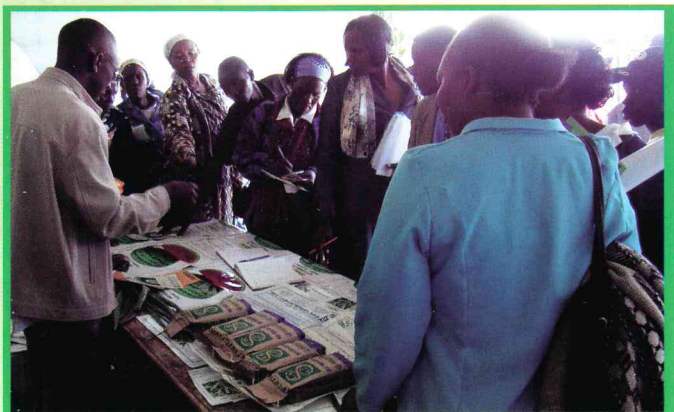
German ambassador to Kenya H.E Margit Hellwig-Boette, Agriculture Minister Dr. Sally Kosgei and Agriculture Permanent Sec. Dr. Songa at Kilimo House flagging off **EASEED** lorries to deliver relief seeds to drought hit areas.



Farmers at **EASEED** Stand at A.S.K Show Nakuru.



**EASEED** staff in tree planting session at Amrita childrens home in Athi River



Farmers training at **EASEED** Stand during a field day at the Rift Valley Institute of Science and Technology - Nakuru.



Farmers in Mt. Elgon follow keenly at a training on best maize farming by **EASEED** Agronomist

# EASEED® In Uganda

The growth of hybrid market in Uganda can be attributed to aggressive marketing by EASEED team through collaboration with key stakeholders.

Our main focus as we embark on hybridization has been improved yields, disease and pest tolerance, efficiency in utilization of moisture climatic change and consumer preferences.

During the recent tour at our stand in Jinja international Agricultural show, Uganda's president H.E Kaguta Yoweri Museveni hailed the good work EASEED is doing to improve the sector and urged farmers to embrace new and emerging technologies for economic growth.

## EASEED COLLABORATES WITH KEY STAKE HOLDERS TO EMPOWER FARMERS FOR PROSPERITY

We have made a commitment to be with the farmer every step of the way and towards this, we have partnered with key stakeholders like Uganda National Agro-input Dealers Association (UNADA), National Agricultural Advisory Services (NAADS), Ministry of Agriculture, Animal Industries and Fisheries (MAAIF), Uganda Seed Trade Association (USTA), FAO, Poverty Alleviation Department and other state departments who have been very instrumental in disseminating technology to farmers. Among others, UNADA has been instrumental in linking us to the accredited stockists who are then facilitated by AT Uganda for procurement of the right agro-inputs from EASEED. These institutions have also been very instrumental in demonstrating improved agricultural technologies to the farming community, ensuring high quality seed production, distribution and offering market linkages.

With the changes being experienced in climate, increased urban population and diminishing available arable land, we believe that only modern farming technologies will save our farmers. Research in crops which have high yielding qualities under limited rainfall and with high tolerance to problematic diseases and pests are our core focus. With the acquisition of land for research and product development at Kayonga, we assure farmers of quality products and better service delivery.

## HEALTH TIPS

Leafy vegetables have been proven to have a dramatic impact on health such as anti-aging, cancer prevention, skin care, heart and pregnancy health. Leafy vegetable are reputed to have an assortment of vitamins vital for improved health, antioxidants and minerals. As consumers adopt leafy vegetables we in EASEED will continue offering a wide range and of the right quality.

## Did you know?

Clinically, bitter melon (Karela) known to inhibit glucose absorption, increases insulin flow and has insulin-like effects "Befriend Karela" for a rejuvenated healthy life. As smaller as it is, the mustard yellow coloured and peculiarly shaped "Fenugreek seeds" help to regulate sugar levels of non-insulin-dependent diabetics. Enjoy Fenugreek as a Vegetable, a Tea beverage or a Spice for good health.

All onion family members (garlic, leeks, onions, ramps and scallions) help regulate blood sugar. So use them daily and be well nourished.

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Farmers at EASEED Stand at Jinja International Show



EASEED Staff compare notes with AGRA Staff during a field evaluation tour.



Distributors/stockists during stockists training seminar in Jinja/Mbale



Mrs. Mwanja inspects a healthy Sunflower farm for oil extraction at Kabala

# EASEED® In Tanzania

## POSTHARVEST TECHNOLOGIES FOR FRESH LEAFY VEGETABLES

From the farm to the table, leafy vegetable handling is a critical issue in adding value to the produce for the consumer. This section introduces some production factors that influence product quality and shelf life, and discusses PHT innovations and recommendations, from harvesting to market handling.

### Improved Crop Variety

Leafy vegetables have limited storage life even under optimum storage conditions. The potential shelf life is partly under genetic control and can be manipulated by breeding. Some specific shelf-life attributes that can be manipulated through breeding include green color retention and resistance to postharvest stress such as high temperature and microbial infection.

More effort is now being exerted to develop vegetable varieties with desired shelf life, shipping and processing attributes, and high levels of nutrients. Breeding leafy vegetables with high carotenoids content has been reported and results in lettuce were promising due to observed genetic variations in B-carotene and lutein contents. B-carotene and lutein were observed to be higher in leaves with higher chlorophyll content.

### Production Factors

Environmental conditions and cultural practices during production have tremendous effects on produce quality, safety, and shelf life. For example, lettuce harvested during a period of rain does not ship well and product losses are increased. Produce stressed by too much or too little water (by irrigation or rainfall), high rates of nitrogen fertilization, or mechanical injury (scrapes, bruises, abrasions) is susceptible to postharvest diseases. Brassicas are prone to bacterial soft rot if nitrogen is applied as foliar feed, thus nitrogen should be applied to the soil.

Stress during growth has different effects on produce quality and shelf life. Sustained and intermittent water stress has negative effects for leafy vegetables. Ensuring safety of fresh leafy vegetables also begins in the field. Outbreaks of food-borne diseases has been traced to contamination of produce in the field. Some preventive measures include (1) avoiding application of fresh animal manure or slurries to a field or to an area immediately adjacent to a field nearing harvest maturity, (2) cleaning equipment that has been used to apply manure on one field before moving it to another field, (3) avoiding using irrigation water from a farm pond used by livestock, and (4) avoiding contact of produce with soil during growth (by mulching) or harvest.

### Harvesting

Quality cannot be improved after harvest, only maintained; therefore, it is important to harvest at the proper maturity stage and at peak quality. Immature or overmature produce may not last as long in storage as that harvested at proper maturity. For example, common cabbage and Chinese cabbage heads are harvested when firm and mature. A compact head can be only slightly compressed with moderate hand pressure. Delaying harvest can result in split or cracked heads and increased incidence of rots. Immature heads are puffy or have hollow spaces because the inner leaves are not fully developed and hence, loosely arranged, which make them susceptible to damage. When harvested immature, yield decreases and shelf life is shorter than that of mature heads.

### Time of Harvesting

Harvesting during the coolest time of the day (e.g. early morning) is desirable; the produce is not exposed to the heat of the sun and the work efficiency of the harvesters is higher. If harvesting during the hotter part of the day cannot be avoided, the produce should be kept shaded in the field to minimize product heat, weight loss, and wilting.

### Harvesting method

Harvesting is done manually, hence the harvesters have a major influence on produce quality. They should be made aware of the importance of good sanitation practices, proper maturity selection, and careful handling to avoid mechanical injuries. For instance, cabbage head is harvested by bending it to one side and cutting it with a knife, which should be sharpened frequently to reduce effort and lessen picker fatigue. Harvested cabbage can be placed in bags, boxes, wagons, or pallet bins. Harvesting aids can significantly reduce labor costs, improve harvest efficiency and;

- cabbage quality, and speed the harvest and field handling operation.
- Mustards, Collards and kale are harvested as single leaves or whole plants.
- Fields are usually harvested several times, so care is needed to prevent damage to the plants.
- The produce must be handled gently during harvesting and field handling to avoid physical damage.

### Field Handling

- The harvested produce is usually placed in collection containers, which may be plastic crates or bamboo baskets with cotton or paper cushioning or padding.
- Throwing harvested produce into the collection container or vehicle should be avoided to prevent physical injuries. Handling aids such as boxes, farm trailer, or a simple conveyer can be used.
- Exposure of harvested produce to the heat of the sun is detrimental.

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- Leafy vegetables left in the sun after harvest may reach temperatures as high as 50°C

High product temperature accelerates quality deterioration due to increased water loss and respiration. If packed and transported without cooling, wilting and other deteriorative processes rapidly set in.

- Purposive water loss (2-3% water loss) may be imposed on harvested produce.
- Subsequent washing to remove dirt is able to rehydrate the produce.
- After the treatment, prompt transport to the packing shed should be done to dissipate field heat without the use of water for cooling.
- Washing is not advisable in common cabbage.
- Other leafy vegetables should be transported to the packing shed as soon as possible as they are particularly susceptible to wilting and other damage from high temperatures.



EASEED stockist training seminar at Mwanza



Students admire a Nuru F1 Plot at EASEED Nane Nane demonstrator plot in Dar es salaam



EASEED research and product development team during sorghum trials field inspection



Farmers follow keenly during a training on best agronomic practices on maize in Arusha.

# International News



- Our entry in countries like Rwanda, DRC, Angola, Mozambique, has been commendable. This has been attributed to the competitive products among them; Cabbage Zawadi F1 and Fanaka F1, Watermelons, Onion Red Creole and Carrot. We will be venturing with more products even as we strengthen our roots by linking more farmers, distributors and other stakeholders.
- In the spirit of our motto “Africa’s Best” Syova Seeds has welcomed the youngest state in Africa, the Republic of South Sudan. During the recent First Agricultural show in Southern Sudan held on 10th November 2011 in Juba, we made a commitment to the Southern Sudan farmers of providing them with same high quality agricultural inputs and responsive and freindly services as those that have been enjoyed by the rest of East African community.
- In partnership with multiple suppliers, our products are now available in Juba and will soon be available country wide.
- In his opening remarks Dr. Machar, Vice President of the Republic of South Sudan, welcomed investors to the Republic of South Sudan and encouraged them to invest in agriculture. He pledged the support of the government for any investors willing to invest in the country. He called on South Sudanese to double their efforts in agriculture so as to produce adequate food for the needs of the country and even a surplus for sale.
- The minister for Agriculture and Forestry Hon. Dr. Betty Achan Ogwaro said that it is the first time in the history of South Sudan and its farmers to display their agricultural products to the other African countries as well as the international community. She said that 85 percent of the people of South Sudan depend on agriculture. She explained that South Sudan has suitable land, water and other resources needed to boost agricultural production.



Vice President Dr. Machar cuts the tape to officially open the show



EASEED staff admire good display of products by distributor in Southern Sudan



Visitors admire an improvised demonstration plot in Southern Sudan



Delegates at a previous AFSTA Congress. 2012 Congress in Zanzibar, Tanzania March 2012 - See you there



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