



Vegetable production in the hot season (October - February)

Proper planning for this season will lead to successful vegetable production



We are in the short rain season (October to December), a period of high temperatures and unreliable rainfall that spills into the hot and dry January to February period. The weather of the October to February period has implications on crops grown, pest and disease levels. For farmers it is therefore important to plan well for this season.

What is so special about this period? Many farmers fear the scarcity of water and temperatures that favor most of the pests. Because of this many farmers refrain from growing vegetables during the short rain season. This leads to scarcity of vegetables on most markets and prices for products are higher. For example, there usually is a big shortage of tomatoes in December, January and February.

So, you might consider to grow vegetables during the hot season. Before starting, there are important things to get in order:

1 You need plenty of water, especially after December

Timing for short rain season is of paramount importance. Vegetable production requires good water supply. Since rainfall is inadequate and unreliable during the season, fields need to be prepared early to utilize the scarce rain available. High temperatures during this season means high demand for water. Plan for irrigation. This could be done through utilizing a stream, digging a borehole or using some other water source. Make sure you store water in a pond or tank.

2 Get informed about the demand, before you decide

To get some ideas about the demand and possible prices for your product (when it is ready to harvest) obtain as much as possible information about the market situation. Use your own experience but also services already available: e.g. the Tanzania Horticulture association (TAHA) records daily process for major markets in Tanzania. season, the higher prices expected justify this production.



3 Select the right crops/seeds/varieties that are suitable for this season

Vegetable crops come in different forms and they thrive in different environments. This season is particularly favorable for crops such as pumpkin, watermelon, tomato, eggplant, cucumber and peppers. However, some supposedly cool season crops may also be grown as varieties (especially hybrids) have been developed that tolerate higher temperatures, e.g. cabbage. Some farmers even plant onions during the hot season. Although the yields are not as high as during the cooler long rain season, the higher prices expected justify this production.



4 Insects also like the heat. Understand the impact of the season on pests and diseases and act accordingly

Pests

The hot weather increases pest incidences as such pests multiply rapidly. Most sucking insects and other pests such as red spider mites, whiteflies, thrips, fruit flies, aphids et cetera like this season too and they are ready to cause you problems. So make sure you plan well for pest management.

Some examples of pests you may observe in tomato, pepper or eggplant and pesticides to control them:

Pest	Control options
Aphids	Dimethoate 40% EC, Imidacloprid, Lambdacyhalothrin to control
Reds Spider Mites	Dicofol, Abamectin, Imidacloprid
Broad mites	Abamectin or Thiocylam Hydrogen Oxalate 50% w/w (Evisect).
Thrips	Spinosad (Tracer 480 SC), Malathion 25% WP or Thiocylam Hydrogen Oxolate 50% w/w (Evisect),
Whitefly	Use whitefly yellow sticky traps. Lambdacyhalothrin or Thiocylam Hydrogen oxalate 50% w/w (Evisect). Thiamethoxam (Actara 25WG)
Tuta absoluta in tomato	Options for larvae & eggs : Spinosad, Methoxyfenozide, Flubendiamide Adults: Chlorpyrifos

Make sure to use a seasonal rotation of pesticides, e.g. do not apply one product only to control a pest, but alternate.

Diseases

High humidity and moisture on leaves increases disease incidences during the rainy periods. Although diseases incidences are generally lower during this season compared to the long rain season you should still look out for:

- Leaf diseases in tomato (e.g. early blight and bacterial spots), pepper and eggplant, which can be controlled with preventive sprays of Mancozeb or Chlorothalonil and Copper.
- Powdery mildew in watermelon which can be prevented by the use of Sulphur, Propineb or Difenoconazole.



After you have given these specifics a thought make sure you are able to grow the crop and take it to the finish successfully. To help you planning from sowing to harvesting a seasonal calendar can be useful. A seasonal calendar is nothing more than a draft on a sheet of paper about the crops you want to grow for consecutive seasons, with resources you need at specific dates, like pesticides, fertilizers, seeds, but also labor. Besides, the calendar includes the climate conditions. The calendars are useful in identifying planting and harvesting times, labor constraints and marketing opportunities. SEVIA extension officers can help you out with drafting a calendar ●

NANENANE: When farmers win, SEVIA wins



SEVIA was awarded first and second prize for service to farmers during Nanenane fairs in Arusha and Morogoro respectively. In Dodoma, SEVIA exhibited under the Kondo District Council Stand. The District Council was awarded first prize. Nanenane is the agricultural show organized by TASO (Tanzania Agricultural Society Organisation) that brings together key players in the agricultural sector from the agribusiness world, to the public agricultural sector and NGO world right down to the thousands of farmers. During eight days in August every year (1st - 8th Aug) farmers find everything they need under one 'roof'. Therefore SEVIA would not want to miss out on such a glorious opportunity to reach hundreds of farmers with extension services. It was the second time for SEVIA to participate in Nanenane. In 2015, SEVIA managed to reach 271 farmers at the event in Arusha and was awarded the second prize. In 2016, SEVIA showcased various improved varieties and technologies and got in touch with 2598 farmers.



Bonaventura Lusaulwa does a one-on-one advisory service with a farmer in Morogoro Nanenane



Ladislaus Mkufya explains the merits of greenhouse production to farmers in Dodoma Nanenane



Joseph Masethya assists a farmer to calculate seed requirements and fertilizer rates in Arusha Nanenane

It was a win-win situation for farmers and SEVIA alike as farmers went home with valuable production information while SEVIA was awarded prizes for their effort.

Minister Martijn van Dam comes to SEVIA

The Netherlands Minister of Agriculture, Mr Martijn van Dam, visited the SEVIA Centre in Hai District (Kilimanjaro Region) on the 16th of June 2016. The Minister appreciated SEVIA's work especially the information sharing and transfer of technology to farmers as highlighted by the testimonies that met with him, the inclusion of costs of technologies as shown on the greenhouses and drip irrigation. Speaking on behalf of SEVIA, Elijah Mwashenyi (Managing Director) SEVIA appreciated the support from the Dutch Government and its impact on contributing to improvement of vegetable production in Tanzania ●



Who is...? **Abel Kuley**

Mr Abel Kuley is product development manager at Afrisem, a breeding program by East West Seed and Rijk Zwaan. He is not new in horticulture in East Africa as he had already worked in the Tanzanian flower industry for 13 years and with Artemisia for another 5 years. Mr Kuley joined Rijk Zwaan in 2011. Rijk Zwaan is one of the world's biggest producers of vegetable seeds for greenhouse production. Tanzanian farmers love the coloured sweet pepper variety.



Farmers discussing via Whatsapp

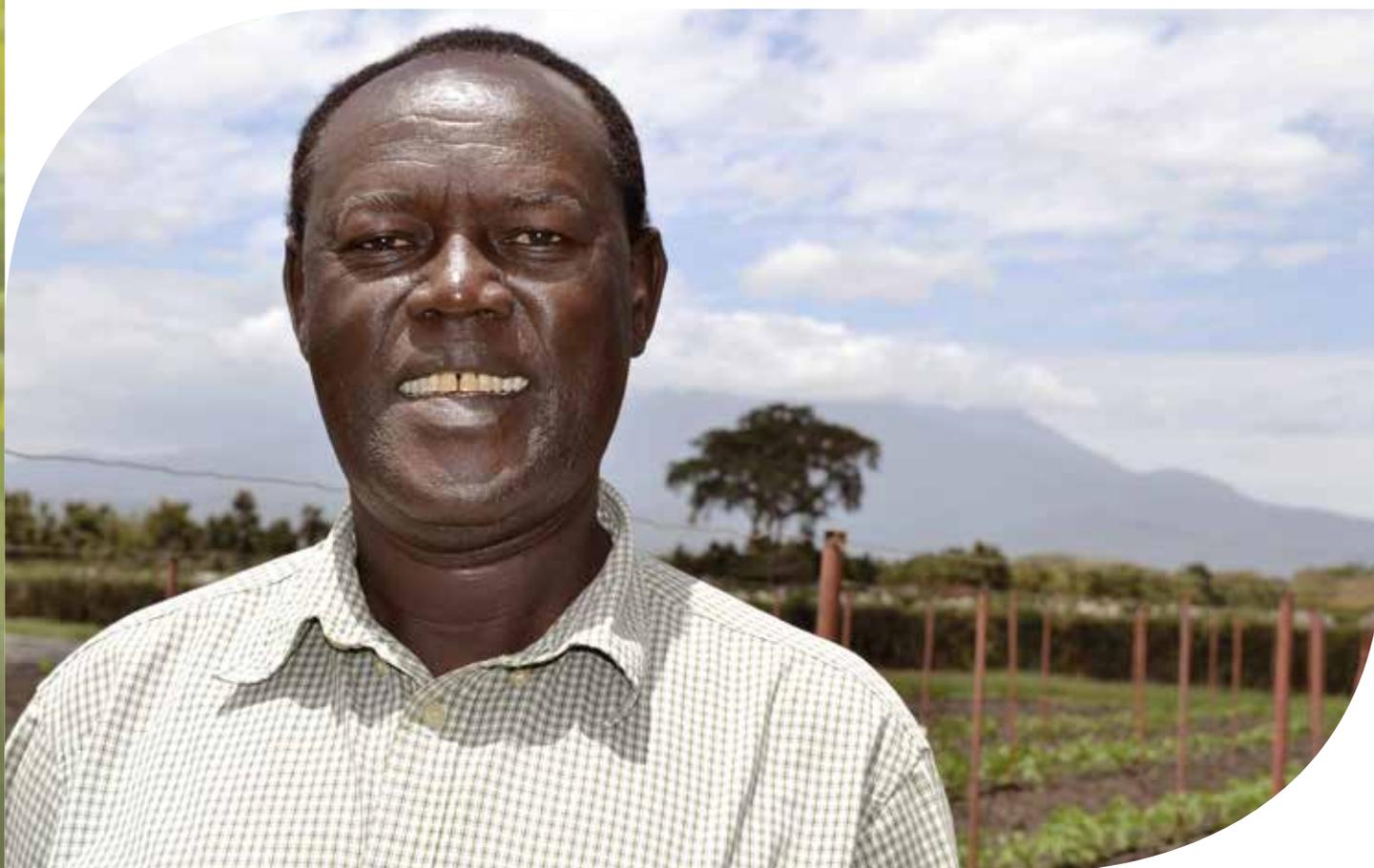
You will probably find Mr Kuley in the fields, since he prefers working hand in hand with everyday farmers over sitting at a desk. He likes to introduce new varieties to farmers and to train them on how to best grow them. Recently he set up a Whatsapp group, which he calls his 'strategic method'. He is proud of it: 'With more than 700 farmers discussing their experiences, these progressive vegetable farmers inspire me everyday.'

Small investments can yield millions

Just like SEVIA, Mr Kuley tries to convince farmers to grow in a small area, by showing them that they can achieve better yields much more by applying the right farming methods. Kuley's experience is that even high tech farmers in Tanzania developed from cultivating in small areas: 'Rather small investments, like 1/6 of an acre in greenhouse production, can yield millions of shillings.'

Advise them to switch

He acknowledges that farming also can have its setbacks. For instance, when prices are dropping farmers are affected. He refers to the example of coloured sweet pepper. In the beginning, greenhouse sweet pepper producers made good business because they were few. But right now 98% of greenhouse farmers in Tanzania grow coloured sweet pepper, and the market supply is higher and prices have gone down. 'However', Mr Kuley states, 'the price will not fluctuate extremely as for tomatoes because coloured sweet pepper is a new product that is still penetrating into our local markets. All the same Rijk Zwaan has devised a calendar. We advise greenhouse farmers to produce tomatoes during the short rains season (January to June) when most outdoor farmers won't be producing. After this we recommend them to switch to sweet pepper during the long rains season (April to August) because July, August and September are the peak months for tourists and the demand for coloured sweet pepper will increase in hotels.'



'These progressive vegetable farmers inspire me every day'

SEVIA is the trainer

Mr Kuley works closely with SEVIA professionals: 'While we, as seed producers, continue to meet farmers' needs with varieties, SEVIA has become our

second arm after deploying extension officers across Tanzania who train farmers through demonstrations. Farmers are now more aware of hybrid seed varieties and technologies involved when using these delicate yet high quality seed.' He emphasizes that in the long run farmers should relate to SEVIA as 'the trainer', since SEVIA has dedicated all its facilities to training vegetable farmers and sector professionals. 'It is my hope that SEVIA continues to reach more farmers ●'

Dear Reader,

Once again we are coming to the close of yet another eventful year for SEVIA. The year 2016 was a year of rapid extension of our extension program that has now reached over 12 000 farmers in 12 districts (10 regions). We expect even further expansion in 2017



with expected increase of our extension team from 14 to 19 staff members so that SEVIA will have a presence in 16 districts. It means an increase in our demonstrations (that epitomize our theme 'Seeing is Believing') to well over 400 demonstration sites per year. This expansion will also include a trainer based at the SEVIA Centre so as to strengthen our training, supervision and pest & diseases management capacity. Despite these changes, our messages to farmers will continue to be the same:

- the need to treat vegetable production as a business
- the need to confirm the market for your intended crop before going into production
- the need to have reliable water sources
- the need to select good seed/ varieties
- the need to use better technologies and techniques
- the need to improve crop management
- and the need to seek support from extension officers.

As we enter the new-year, we will continue to emphasize these messages

and many more. In doing this we hope we can continue to be of service to you. There is therefore every reason to be hopeful and to expect better days to come.

On behalf of all SEVIA staff and Board, we would like to wish you a Merry Christmas and prosperous New Year!

Elijah Mwashayenyi
SEVIA managing director



Agenda

JANUARY

- New extension officer deployed
- Farmers' training
- Training of sector professionals
- Off station field days



FEBRUARY

- Monitoring and evaluation inception workshop
- Farmers' training
- On station field days



MARCH

- Farmers' training
- Farmers' selection for long rain cropping season



Stories from the field

Having a greenhouse does not make you a good farmer, but knowing how to farm in a greenhouse does! Mr. Christopher Elias Mrecha is a regular farmer in Hai who built a greenhouse in the hope of increasing his income. When SEVIA's Tyrrel Chisenga and Epaphras Milambwe visited him for the first time, he was growing sukuma wiki (a popular local Brassica) in his greenhouse.

cucumbers and failed. Then he switched to growing sukuma wiki. After three years of disappointment he decided it was time to more serious measures and seek opinion from experts, if he was ever going to upscale his production and income. Having heard of the SEVIA project from Abel Kuley (from Rijk Zwaan), where he went to look for quality seed, Mr. Mrecha made haste to visit the SEVIA farm. After his first



Mr. Mrecha said he was often misled on his failing crops in the greenhouse. He had already tried to grow tomatoes and

consultation he was alerted by SEVIA that his plot had a serious case of bacteria wilt. And due to poor construction of the green house, the air circulation was ineffective which caused other diseases due to high humidity.



A cucumber demonstration was set up immediately under the supervision of SEVIA's Florah Yangole and Theophilo Nyigaga, to train Mr. Mrecha how to manage cucumber both inside and outside the greenhouse. After just over one month of guidance and good farming practice his crop was ready for harvest. He was urged to seek market before harvesting and he successfully managed to secure a market with Nakumatt Moshi. Due to the good quality of his products he was asked to consider supplying a number of other vegetables.

Mr. Mrecha is one of many greenhouse farmers who thought that just by having a greenhouse he would eventually have money in his pocket. However, one thing all farmers should have in mind is that they should always seek advice before and after setting up the greenhouse. It is the farming skills that make the difference!

People @ Sevia

Meet our extension team

SEVIA has now deployed extension officers covering 12 districts in 10 regions. Each extension officer works with farmers to host demonstrations on vegetable production in a district. The demonstrations are both on improved varieties and technology. Training, consultation/advice, farm visits and field days are part and parcel of the extension officer's portfolio. The services are free. This team is directly supported by Epaphras Milambwe (Extension Manager) and Thobias Mkamate (Senior extension officer). Check with our extension officer, you never know he might be living or hosting a demo not very far from you.



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