

# The Coffee Farmer

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National Union of Coffee  
Agribusinesses and Farm  
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## AUCTIONEERS ROCK THE BIRTH PLACE OF COFFEE



Mr. David Barry, MD Kyagalanyi Coffee Ltd. and EAFCA Board Member (left) with Mr. Andrew Rugasira, MD, Rwenzori Company and Chairman EAFCA-Uganda Chapter in Addis Ababa Ethiopia in February 2007

**By James Rogers Kizito-Mayanja, Principal Market Analyst, UCDA**

Between 14<sup>th</sup>-17<sup>th</sup> February 2007, over 500 delegates attended the 4<sup>th</sup> African Fine Coffee Conference and Exhibition organised by EAFCA (East African Fine Coffees Association) in Addis Ababa, Ethiopia in which the best fine coffees from the EAFCA region from the Taste of Harvest Competition were sold in the first ever EAFCA Ltd. Auction. The auction, held in the United Nations Conference Centre in Addis Ababa, Ethiopia on 17<sup>th</sup> February 2007, witnessed a dialogue between expectant suppliers of high quality Arabica coffee from Ethiopia who had already submitted in their samples which were analysed by the international cof-

Turn to page 2:

A WORD FROM THE  
EXECUTIVE DIRECTOR



Mr. Nkandu Joseph (E.D. NUCAFE) addressing cocoa farmers in Bundibugyo about the importance of Bulking their produce.

Realising that competitiveness is a combined effort and we have been able to work with Government organizations in what we call private-public partnership. This has enabled us reach a wider farmer base, through the NUCAFE-NAADS partnership we have extended our farmer ownership model to Kanungu and Budibugyo Districts, offering our services to the cocoa-coffee farmers in the above mentioned.

It is because of our excellent results that have been displayed with the AGRICORD funded programme in the last two (2) years that we demonstrated influenced other stakeholders to join hands with us for the betterment of the rural small scale farmer. To complement the farmer ownership model the cluster innovation was introduced by to ensure all coffee stake holders cooperate.

## ABOUT NUCAFE

### NUCAFE's Vision:

- ... to be recognized through Uganda and the region as a commercially viable and quality-oriented system of successful farmer-directed and owned coffee business associations through which farmers increase their individual business returns and participate directly in building the rural economy sustainably.

### NUCAFE's Mission:

- ... to develop and establish a sustainable market-driven system of coffee farmers' business associations through which farmers participate fully in determining the economic future for their households and rural economy.

# ETHIOPIA ROCKS CONTINUED:

*From page 1:* fee experts, waited for the highest bids on one hand, and the enthusiastic buyers on the other. Each lot was auctioned and any buyer from among the delegates would offer a price announced by the auctioneer. One lot fetched as high as US \$ 5 per lb. This was the first auction organised by EAFCA.

Worth noting is that the supplier would communicate to the auctioneer the reserve price below which a coffee lot could not be sold. Buyers were interested in the story of the coffee being auctioned: its quality attributes (fragrance/aroma, body, acidity); how and where it is grown (altitude); and, of course, the company or co-

the participation of a number of co-operative societies in the exhibition which reflected their competitiveness in production and showcasing of their unique high quality coffees.

In the conference and exhibition, Uganda was represented by Kyagalanyi Coffee Ltd., Neumann Group of Companies (NGK) and MTL Main Traders Ltd. which showcased their coffees to the delegates in the exhibition area. Mr. Tom Adams, the MD of Agricultural Private Capital (APC), gave a presentation of how the coffee companies could benefit from the credit services offered by APC.

Other delegates who attended the conference included: Mr. Andrew Rugasira, MD of Rwenzori Coffee Company and Chairman EAFCA Chapter-Uganda, Mr. David Barry, MD, Kyagalanyi Coffee Ltd. and also EAFCA Board Member, Hajji Ayub Kalule-Kalale, MD Job Coffee Ltd., Mr. & Mrs. Luigi, MD of MTL Main Traders, Mr. Fred Kawuma, MD, Acclaim Africa, Dr. Georgina Hakiza (Coffee Research Institute-CORI), Dr. James Ogwang (Ag. Director, CORI), Dr. Paulina Aluka (CORI), Mr. Nathan Uringi (Agricultural Productivity Enhancement Project-APEP), Mr. James R. Kizito-Mayanja (UCDA), Mr. Fred Ojiambo (Journalist-Bloomberg), Mr. Nicholas Bariyo (Journalist-Dow Jones), among others.

The 5<sup>th</sup> African Fine Coffee Conference will be held in Kampala, Uganda in February 2008 and is expected to attract prominent personalities in the coffee industry.

**...The 5<sup>th</sup> African Fine Coffee Conference will be held in Kampala, Uganda in February 2008 ...**

operative society which was selling the coffee and how it was contributing to the development and welfare of the coffee farmers (Corporate Social Responsibility).

What is apparent is that co-operative societies are still playing a pivotal role in mobilising and marketing of coffee in Ethiopia. The coffee is then auctioned in Addis Ababa in the Central Auction after rigorous quality analysis has been done. This involvement was also manifested in



*Trucks loaded with Arabica parchment coffee at the Addis Ababa Coffee Auction ready for quality analysis and grading*



*Oromia Coffee Farmers Co-operative Union, Ethiopia displaying unique Arabica coffee at the Addis Exhibition*



*Mrs. Luigi of MTL Traders and her colleague prepare to serve a cup of Elgon/Masaba Coffee to one of the show goers*

# KIBINGE C.F.A SKY ROCKETING WITH UTZ KAPEH

BY: Musenze Robert

It was not long when I received an invite to attend a colorful event that was to be organized in Masaka - Kibinge Sub County. Long before I'd heard about Kibinge Coffee Farmers Association and all the fame that came with the name, it was a whole package. Mentioning the name meant nothing else to the listener other than coffee farmers smiling all the way to the bank, healthy households and good green well maintained coffee plantations. At the beginning of the year 2006, Kibinge was hitting the skies it got a grant for Utz Kapeh certification, it was one of these events that are involved in the certification programme that got me an all expenses paid ticket to the one place I had always yearned to be.



**THE CHAIRMAN KIBINGE C.F.A HANDING OVER BICYCLES AND TARPULINS TO FARMERS PAVING WAY TOWARDS GETTING FARMERS UTZ KAPEH CERTIFIED.**

any sleep that night, it might have been because of the anxiety that had built up, at the break of dawn the car engine was already warm, had a cup of coffee and kept a flask of freshly brewed Uganda coffee, this was not any ordinary coffee it was roasted freshly on the coffee pot particle, call it home roasted traditional coffee, the aroma, body, flavor and acidity is top of the Reef, here comes the best part it originates from Kibinge sub county. By 7:00am we were on the highway to Masaka, there is this continuous scare about uncontrollable road accidents on this specific highway thanks to General Kale Kaihura, there is a rapid decline in the fatal incidents on this grand work of a civil engineer, with

the windings counting down within two hours we were on year another wonder of Uganda, the famous Mbarara highway, had a stop over at the famous Total High Way, this majestic venue welcomes all those from Kampala congratulating them for have passed the famous River Katonga swamps, and long flat lands of Lweera, these places do not bring good news to some while a mere mention of their names to some simply brings tears of sorrow to those who lost their loved ones in such places, talk about coffee brewed at the shores of Lake Victoria it has a special liquor taste that is striking with a difference. It leaves you wanting to ask for more and more of this taste bud teasing delicacy. Hardly had I memorized the new found taste in my cranium, than we embarked to the wind to the Land that is famous know for Long horned cattle, milk and bushera (a brew of sprouted millet) within a blink of an eye we were at our final destination.

We arrived at 0900hrs (GMT+3), the day was more colorful with farmers clad in bright color Busuuti, Kanza's and various dress codes. The farmers arrived at the ceremonial ground between 08:30-10:00am, the function kick started off at exactly 10:30am, by singing the Uganda National Anthem (One Stanza) followed by the Buganda Anthem (all stanzas) then a prayer. The Opening words were read by the Chairman of Kibinge Coffee Farmers Association Mr. Livingstone Mpiimbe, he had motivating words of speech, I recall issues of approximately 450 farmers were going to receive tarpaulins on this day, not just because they had attended the function, as a reward of their Excellency in marketing properly dried coffee, and this would further boost them and be able to market a better quality produce

Turn to page 5:

**.....coffee brewed at the shores of Lake Victoria it has a special liquor taste.....**

On the 12<sup>th</sup> October I got up really early, I could hardly get

## COMING TO YOU SOON IN OUR NEXT ISSUE:

*The challenge of getting certified, the tough road, sacrifices involved in getting certified.....*

*Contracts in the coffee industry; what to consider in terms of quality, shipping, mode of delivery, terms of payment and using intermediaries....*

*Experiences of Business Managers in the past year, their view of challenges and Successes achieved....*

*More coffee prices, And so much more....*

**Current coffee prices:**

**Robusta Kiboko**

900 - 1000 UgX

**Robusta F.A.Q**

2000 - 2100 UgX

**Arabica:**

2300 - 2400 UgX



## DOES COFFEE RAISE BLOOD PRESSURE?

by Matt Pitcher (*Matt Pitcher is a Certified Fitness Trainer (CFT)*)



If you suffer from Cardiovascular Disease (CVD or coronary heart disease) and/or fear you might some day due to high blood pressure, is your coffee consumption compounding the problem? Or, are there other things you can do to alleviate your high blood pressure and CVD concerns that do NOT include ending, or severely lessening, your coffee intake? This article explores reliable answers to those questions.

### Can Coffee Contribute to Coronary Heart Disease?

CVD is the number one cause of death in America and high blood pressure is one of its biggest red flags. CVD has been the subject of extensive medical and scientific research for several decades. While researchers have differed in their conclusions over time, new evidence reported in *The American Journal of Epidemiology* in 1999 strongly indicates that consumption of coffee and caffeine does not contribute to CVD, finding neither caffeinated nor decaffeinated coffee associated with the risk of stroke—even for those drinking more than four cups of coffee a day.

Warren G. Thompson, M.D., noted in a 1994 literature review published in *The American Journal of Medical Sciences*, that: "The largest and better studies suggest that coffee is not a major risk factor for coronary disease."

Willet et. al, in a prospective study reported in the February 1996 issue of the *Journal of the American Medical*

Association (JAMA), examined data collected from more than 85,000 women over a 10-year period. After adjusting for known risk factors, the authors found no evidence for any positive association between coffee consumption and risk of CVD for women consuming six or more cups of coffee a day.

A 1990 *New England Journal of Medicine* study of more than 45,000 men found no link between coffee, caffeine and CVD for those drinking four or more cups of coffee a day.

These results confirm findings from the earlier Framingham Heart Study of more than 6,000 adults conducted over 20 years (as published in the *Archives of Internal Medicine*) and two 1987 studies using data from the Honolulu Heart Program (published in *The New England Journal of Medicine* and *The American Journal of Epidemiology* respectively).

### Does Coffee/Caffeine Consumption Contribute to High Blood Pressure?

Despite previous controversy on the subject, most researchers now conclude that regular coffee and caffeine use has little or no effect on blood pressure.

Studies reviewed in the *Progress in Cardiovascular Diseases* indicate that while first-time caffeine use may produce immediate, minimal changes in blood pressure, these changes are transient. No changes in blood pressure appear to occur in regular users of caffeine. A 1991 study published in the *British Medical Journal* reached the same conclusion and indicated that restricting caffeine did not reduce blood pressure in people with mild hypertension. A number of studies that have looked at people with normal blood pressure (published in the *Archives of Internal Medicine* and the *American Journal of Nutrition*) have concluded that caffeine does not contribute to hypertension.

In 1997, the Sixth Report of the National Institutes of Health's Joint Na-

tional Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure concluded that, "no direct relationship between caffeine intake and elevated blood pressure has been found in most epidemiologic surveys."

I think it's safe to conclude that enough reliable evidence exists that can put to rest the claim that coffee/caffeine contributes to high blood pressure and even CVD.

### What's the Better Alternative than Retiring Your Coffee Mug?

As a certified fitness trainer, I've learned that one of the most effective ways to counteract high blood pressure and the onset of CVD is to be physically active, NOT – as the studies above prove - eliminate caffeine consumption. In fact, as my caffeine and fitness article explains, caffeine can even help you become more fit.

An American Heart Association study, as referenced by several peer-reviewed scientific and medical publications, has recently claimed that people who are physically active have a lower risk of getting high blood pressure – 20%-50% lower – than people who are not active.

...stress is  
also a major  
CAUSE of high  
blood  
pressure...

Besides losing weight, there are other reasons to exercise: Being physically active can reduce your risk for heart disease, help lower your total cholesterol level and raise HDL-cholesterol (the "good" cholesterol that does not *Turn to page 5:*

## COFFEE AND BLOOD PRESSURE

*From page 4:*

build up in the arteries), and help lower high blood pressure. And, again, people who are physically active have a lower risk of getting high blood pressure – 20 to 50 percent lower – than people who are not active.

More vigorous exercise has added benefits. It helps improve the fitness of the heart and lungs. And that in turn protects you more against heart disease and high blood pressure. Activities like swimming, brisk walking, running, and jumping rope are called "aerobic." This means that the body uses oxygen to make the energy it needs for the activity. Aerobic activities can condition your heart and lungs if done at the right intensity for 30 minutes, three to four times a week. But if you don't have 30 minutes for a break, try to find two 15-minute periods or even three 10-minute periods. Try to do some type of aerobic activity in the course of a week. And, since stress is also a major CAUSE of high blood pressure, exercise can even help lower stress levels as well.

Most people don't need to see a doctor before they start exercising, since a gradual, sensible exercise program has few health risks. But if you have a health problem like high blood pressure; if you have pains or pressure in the chest or shoulder area; if you tend to feel dizzy or faint; if you get very breathless after a mild workout; or are middle-age or older and have not been active, and you are planning a vigorous exercise program, you should check with your doctor first. Otherwise, drink your coffee, get out, get active, and get fit – and help prevent high blood pressure and CVD.

### **Conclusion**

Coffee consumption does not contribute to high blood pressure and CVD. Retiring your coffee mug is not going to help you reduce your risks. Exercising, however, will. So, go ahead and drink your coffee – especially before your next workout!

## KIBINGE PROJECT CONTINUED

*From page 3:* thus sending more of their children to school and even work harder on their fields. Mr. Mpiimbe hinted on issues of Utz Kapeh certification saying that so far 60% of the farmers were ready for the certification process and that towards the end of the year, special inspectors were coming in to monitor the progress of the certification process between 1<sup>st</sup> and 2<sup>nd</sup> November. One thing in his speech really caught my attention, he stressed the issue of "Money Makes Money", and since the farmers have got it in minute quantities they were encouraged to use their labor to avail their needs citing the Luganda saying, "bwolaba akukabirakko nga nawe okaaba" (translated literally as: if you see someone crying on your behalf you also cry), he must have used this, to indicate to the farmers that since they have managed to secure funding for the certification process then it high time they embraced the opportunity as this is one of the few alternatives that would enable farmers to get out of poverty.

The coordinator of Kibinge Coffee Farmers' Utz Kapeh project also had this to say, Kibinge Coffee farmers have marketed over 20tonnes in bulked coffee, and some were to receive seedlings and other planting materials in form of seeds adding that those farmers who had registered themselves to receipt of these materials, their names and names of the groups they belong to had been already submitted to the District Coffee Coordinator (DCC) to be forwarded to Uganda Coffee Development Authority (UCDA). He says that they have procured several materials that are needed for like sign posts to indicate the farmers undergoing the certification process, setup stores for chemical storage and protective gear,

trained first aid workers to handle both the chemical and machinery accidents, a moisture meter, weighing scale, fire extinguisher for the store, two bicycles and Motorcycles were got to facilitate the monitoring and implementation of project activities. He adds on that the coordination office has gone ahead to develop an Internal Control System (ICS) and By-laws that will guide the congregation better and that two (2) nurseries have already rejuvenated and are function to supply quality planting ma-

....Coffee farmers have marketed over 20tonnes in bulked coffee....

terials to for farmers involved the project, and other partners interested in procuring coffee for their use. If am to go on of what was discussed that day, I might go on and on and on.

After listening to all those long speeches and deliberations the time most of the energetic, vibrant youngsters had been waiting for finally arrived, the giving out of tarpaulins to the most performing farmers, then it came to launch, this was so delicious, I can only describe it as a mixture of both traditional and western dishes with aromas of Luwombo (ground nut source), Kilenge (cattle feet), Butikko (mushroom) and Bwakata (local brew) and other exotic drinks. These summarized the day in style, we later embarked on our journey back after downing several bottles of bwa-kata.



# NUCAFE-NAADS PARTNERSHIP, WESTERN REGION ILLUSTRATED



MR. PATRICK EECKLOO FROM I.V.A DISCUSSING WITH MR. MULIGI NTAMBI C/M AND NGANDA PETER BUSINESS MANAGER, BUWAMA C.F.A

MR. PATRICK EECKLOO CONGRATULATING NGANDA PETER SHORTLY AFTER BEING INFORMED THAT HIS ASSOCIATION WAS ONE OF THE BEST PERFORMING ASSOCIATIONS



MR. HERMENT MREMA, TEAM LEADER KANUNGU-NUCAFE PARTNERSHIP ADDRESSING COCOA FARMERS

THE DISTRICT NAADS COORDINATOR OF KANUNGU ADDRESSING FARMERS OF THE PARTNERSHIP BETWEEN NUCAFE AND NAADS



SOME OF THE WOMEN ADDRESSING ISSUES THAT AFFECT THEM IN COCOA FARMING, LIKE MANY AGRO-ENTERPRISES, LABOR ON FARMS ITS MARJORY WOMEN WHO PERFORM MOST TASKS



MR. KASIRYE RONALD A COFFEE FARMER FROM LUWEERO LISTENING TO A TRAINING IN G.A.PS IN COCOA AND MARKETING PROCEDURES THAT WILL BENEFIT FARMERS TO INCREASE THEIR OUTPUT AND INCOME



BEAUTIFUL LANDSCAPE OF THE WESTERN REGION THAT FAVOR COCOA AND COFFEE GROWING THUS MAIN INCOME EARNER IN BUNDIBUGYO

A COCOA TREE IN FULL FRUIT, SUCH TREES ARE IN ABUNDANT DESPITE THE POOR AGRICULTURAL PRACTICES. WITH TRAINING OFFERED FROM NUCAFE, YIELD FROM SUCH TREES IS EXPECTED TO INCREASE





# KANUNGU-BUNDIRUGYO CONTINUED



SOME OF THE OTHER ACTIVITIES THAT THE FARMERS INDULGE IN ORDER TO SUPPLEMENT THEIR INCOME FROM THE COCOA SINCE THE PRICES ARE NOT FAVORABLE. ( L ) QUARRY MINING AND INTERCROPPING VANILLA IN THEIR PRODUCTION SYSTEM ( R )



A FAMILY GATHERED UNDER A SHADE IN THEIR COCOA FOREST REMOVING COCOA BEANS FROM PODS THAT HAVE BEEN FRESHLY HARVESTED. THE BEANS ARE LATER TRANSPORTED HOME IN BASINS FOR FURTHER PROCESSING



YOUNG BOYS TRAVELING BACK TO THE COCOA FOREST TO PICK BASINS LADEN FULL OF COCOA BEANS FOR FURTHER PROCESSING



AT THE MARKETING PLACE. MR. JOSEPH NKANDU TALKS TO SOME OF THE FARMERS AND TRADERS ON PROPER DRYING METHODS IN ORDER TO ATTAIN BETTER PRICES FOR THEIR PRODUCE



WHERE DOES QUALITY DETERIORATION START? SOME OF THE PRODUCE THAT HAS BEEN PROCURED FROM FARMERS IN STORAGE AND BUYING CENTER. SUCH POOR STORAGE FACILITIES HAVE LED TO THE CONTINUOUS DECLINE IN THE QUALITY OF COCOA HENCE LOW PRICES ACCRUED FOR THE PRODUCE



A LITTLE GIRL CARRIES A PAN OF COCOA BEANS HOME, AS THE ONLY FAMILY INCOME GENERATOR. SHE HAS BEEN INDULGED AT AN EARLY AGE TO ENSURE SHE GOES TO SCHOOL

"THIS IS MINE", A YOUNG BOY DISPLAYS HIS HARVEST FROM HIS OWN COCOA GROWN COCOA TREES.





# THE FARMER OWNERSHIP MODEL A HOTCAKE



**Mr. Buule Ronald read a detailed document out to a colleague at one of the trainings conducted by NUCAFE IN Masaka Social center.**

The way NUCAFE has done to organize the coffee farmers together has been the main topic in the social forum that was held in Nairobi Kenya from the 20<sup>th</sup>-25<sup>th</sup> January 2007, in this Forum the participant came from all over the world to discuss about so many issues. But when it came to coffee all participants had to listen from the Uganda Coffee farmer Mr. Buule Ronald S. K., who represented the country about how Uganda has been successful after liberalization in the coffee industry and how it was before.

Mr. Buule Ronald S.K The Chairman Nsangi Coffee Farmers Association presented the report that regards to the situation before Liberalization in the coffee industry in Uganda, and the matter was basically targeting NUCAFE model which became an interesting lecture and meaningful to the audience. Further more the East African Coffee Farmers, decided to unite and form a committee called "The East African Coffee Farmers Community", the intention (target) is to unite East African Coffee Farmers have the same voice, increase on productivity, quality,

spear head coffee farming business. Uganda (NUCAFE) is leading and more experienced in the exercise, members decided that Mr. Buule Ronald from Uganda is to lead and teach the practical part of it in the sense that NUCAFE is more knowledgeable at grassroots.

The model of NUCAFE has worked in Uganda, in so many associations scattered all over the country. In this Model coffee is the entry point but farmers do as business as source of income in additional to coffee. Nsangi CFA its self is found in Wakiso District in Nsangi Sub County it has 350 members, it has established a coffee farmers store, that sell needs to the farmers use like quality seeds, and in preparations to establish a Micro Finance scheme which will be called "Nsangi Coffee Micro Finance Scheme Ltd", for Savings and Credits, in this association farmers organize quality coffee, bulk, process and sell it to the exporters after eliminating the Middle man **we deal with exporters** like Savannah Commodities. The association has a good relationship with the Local government like LCIII, LCV, of Wakiso District and Prominent supporter of the farmers Hon Mike K. Ssebalu currently a member of parliament in the East African Community.

When it comes to work as an association farmers do not involve the "Political Disease" with development. This light has moved all the districts, since Mr. Buule is the Business Manager of Wakiso District. Again and Again I call upon coffee farmers to Unite for success and power all over Uganda, East Africa and in Africa. I extend my sincere gratitude to the NUCAFE secretariat and Uganda Coffee Development Authority (UCDA) for the Job well done. Thank you.

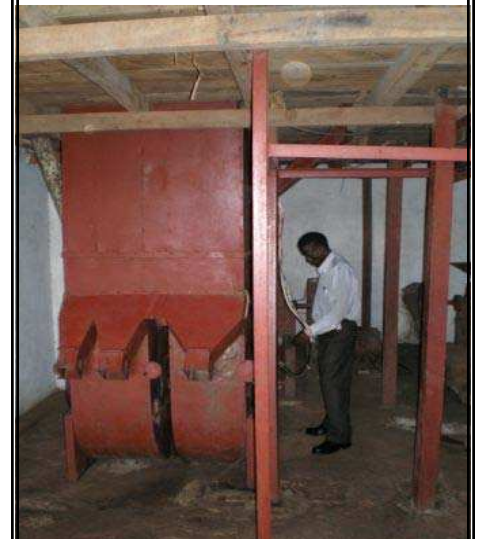
**By: Buule Ronald S. K Chairman Nsangi Coffee Farmers Association**



**MR. MUHEREZA HILLARY (B.M BUSHENYI) DISTRICT TRAINING SOME OF THE GROUP MEMBERS IN ADVANTAGES OF BULKING AND WARE HOUSE RECEIPT SYSTEM**



**WATER HARVESTING, SOME OF TECHNOLOGIES THAT ARE PASSED ON FROM THE SECRETARIAT TO THE ASSOCIATIONS. (BELOW) MR. LUSWATA OF UCDA INSPECTING SOME OF THE MACHINES THAT ARE TO BE USED IN COFFEE PROCESSING OF UTZ KAPEH CERTIFIED COFFEES**





## ORANGE AS AN INTER CROP INSIDE COFFEE PLANTATIONS



Oranges Like these Flourish Better in intercrops like coffee with good shade and better water harvesting methods

Coffee, pepper, oranges, vanilla, cardamom and arecanut grow in wild abundance. Due to the fact that coffee ecosystems comprise of various multi crops, these eco friendly coffee farms have a reputation as being polyculture in nature. The dense proliferation of trees with miles of coffee forests associated with multi-crops, play a very important positive role in shaping the coffee habitat. These multi crops not only live in close harmony with the coffee forest but are largely responsible in significantly altering the micro climate of the coffee bush. In spite of the significant reduction in coffee yields due to a number of factors like competition for nutrients, excess shade, etc, multi-crops offers distinct advantages in enhancing the intrinsic value of Indian coffee by giving it a unique taste of "nature "in the cup.

Not so long ago, Orange cultivation occupied a pride of place as an intercrop inside coffee plantations. This crop played an important role in insulating the coffee farmers from the volatile coffee prices and at times rescued the farmers in times of coffee crop failure. A few coffee farmers have also cultivated citrus as a mono crop under irrigated conditions.

### **MULTIPLE USES OF ORANGES**

Rich source of vitamins and minerals  
Used in the preparation of juice,  
squash concentrated juice & juice

powder.  
Citrus oil and peel oil can also be extracted.  
Highly nutritious & delicious  
Good medicinal value

### **CLIMATIC REQUIREMENTS**

Oranges can be grown in a wide variety of climatic conditions. In Uganda it is grown as a rain fed crop but responds very well to irrigation. Orange cultivation requires slightly higher elevations ranging from 1500 feet to 5000 feet from the main sea level. The ideal temperatures for successful orange cultivation ranges from 25 to 30 degree centigrade. The annual rainfall can range from 40 inches to 200 inches, but the important fact is the requirement for well distributed rainfall between March and November. The relative humidity can range from 85 % to 100 %. A terrain with a gentle slope towards the East or North is ideal.

### **PLANTING MATERIAL**

Budded plants from certified nurseries should be selected. The planting material selected should have the following characteristics.

- Free from diseases and pests
- Uniform size
- True to mother plant in terms of yield quality & Quantity

### **PLANTING**

The size of the pit should be 2½ feet X 2½ feet X 2½ feet with spacing of 30 feet. Once the pit is dug open, the soil in the pit is opened out and exposed to the summer weather. During the onset of monsoon, the pits are filled up with compost and top soil. Planting can be commenced during pre monsoon. Planting should be totally avoided during heavy monsoon period. However, planting can be resumed during post-monsoon period (September-October).

The seedling should be placed at the centre of the pit and the soil around it compacted. The bud joint should be

placed about 6 inches above the ground. The seedlings should be secured firm from wind beat by staking with two sticks cross wise. After planting, the base around the plant is mulched with dry leaves.

### **SOIL CHARACTERISTICS**

Oranges adapt well to a wide range of soil conditions. However, well drained red loamy or light soils are the most preferred. Acidic or alkaline soils are unfit for growing oranges. Hence, the Ph range should be in the region 6 to 6.5.

### **AFTER CARE**

All vegetative growth, suckers and stock sprouts arising from the stem below the bud joints and above up to two feet from ground level should be removed from time to time. It is important to maintain a single stem rather than multiple stems. The top of the tree should ideally be within 6 feet to facilitate harvesting.

### **CULTURAL OPERATIONS**

The soil around the plant should be scuffled for plants up to two years of age. After two years of plant establish-

**...coffee forests associated with multi-crops, play a very important positive role**

.....

**...sprouts arising from the stem below the bud joints ...should be removed from time to time.....**

ment, the soil around the root should not be disturbed, since it leads to root injuries to the surface feeder roots. **Turn to page 10:**

We are on the web:  
[www.ugandacoffee.org/stakeholders/farmers](http://www.ugandacoffee.org/stakeholders/farmers)  
[www.avban.org/associations/nucafe2](http://www.avban.org/associations/nucafe2)

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**NUCAFE**

**FOR SUSTAINABLE QUALITY  
AND COMMERCIALISATION  
THROUGH FARMERS'  
ORGANISATIONS  
DEVELOPMENT**

## **ORANGE-COFFEE INTERCROP PRODUCTION CONTINUED**

From page 9:

Incidentally, the feeder roots are present at a depth of just 3 inches from the top soil. If the need for soil scuffling arises, it should be restricted to within 3 inches from the top soil. Mulching the tree basins with dried coffee leaves is ideal, since it conserves moisture. Yearly pruning should be done, immediately after harvest.

### **MANURES & FERTILIZERS**

The citrus plants require both the major elements (nitrogen, phosphorus, potash, magnesium, calcium) and minor nutrients (zinc, manganese, copper, iron, boron, cobalt, molybdenum) for realizing better yields. Manures and fertilizer application should be carried out in three split applications.

Application should be carried out

**.....Organic  
manures and  
compost play an  
important role...**

when there is sufficient moisture in the soil. Sulphate of Ammonia and urea application are not advisable, since it increases soil acidity and favors Phytophthora root rot.

Organic manures and compost play an important role in estab-

lishment of young plants. Organic manures also aids in the improvement of soil structure and results in the better utilization of applied chemical fertilizers.

Research data proves that young citrus trees (pre-bearing) require a higher proportion of nitrogenous fertilizers for proper development of vegetative growth. During the bearing stage, balanced fertilization of nitrogen, phosphorus and potash should be applied. Balanced fertilization builds up hardiness towards pest and disease attack.

Nitrogen is essential for vegetative growth, phosphorus for root and flower development and potash in improving the size and quality of fruit. Lime or dolomite application can be carried out once in three years.

*Grivellia spp.* and *Albizia spp.* are some of the tree species that can be used as shade crops in coffee plantations that are intercropped with oranges. Like in the photo on the Left.



A Well maintained coffee—orange plantation, with *grivellia spp.* trees as shade crops. Such cropping systems are beneficial to farmers in areas where price fluctuations affect the produce.

**TO ADVERTISE IN THIS NEWS LETTER CONTACT US ON  
OUR EMAIL ADDRESS (NUCAFE@UGANDACOFFEE.ORG)**