

**Campaign start date: February 2016**

**Program 9: Beans - viral diseases**

**Radio transcript – translation into English**

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**Section 1**: English translation

**Section 2:** Kiswahili transcript

**Section 1: English translation**

00:00 **Presenter: Kristian Sumari**

It is Fahari Yangu, Yes it is Fahari Yangu!

Welcome again dear listeners to fahari yangu Radio Program, last week we looked at Diseases attacking beans and this week we are going to continue with this discussion but we will focus more on viral and bacterial diseases but before this we we look at diseases that farmers sees in their beans fields often, In the studio I am with our Expert Edith Kadege, Welcome Edith

**Expert:** **Edith Kadege**

Thank you Kristian

**Presenter: Kristian Sumari**

Our Expert will be live on air to answer your questions and cover today topics as well, I wish you a good listening from now to the end of the program, Welcome!

**Jingle**

Mama Fina are you registered to paza sauti yet? Register now!

**Mama Fina:** Ohh I have the numbers I got the contacts from Fahari yangu Program. Let me beep the numbers now…

Beep beep beep, aaah they hanged up on me, why?

Relax Mama fina they will call you back soon!

**Mama Fina:** oooh it is ringing!

Voice on the phone: Welcome to *paza sauti*

**Mama Fina**: they are asking questions?

Just listen till the end you will be able to participate in the program

**Phone voice:** After the beep press 2 to record your message, after recording press # to send

**Mama Fina:** My name is Mama Fina from Igunga, I grow red beans

Congratulation Mama Fina you have participated in *paza sauti***.**

**Presenter: Kristian Sumari**

We are moving on as I mentioned earlier that we are going to look at beans diseases, let hear from some of the beans farmers, what do they have to say about diseases attacking their beans in the field?

**Farmer:** What is the cause of wilting diseases?

**Expert: Edith Kadege**

Wilting is not a diseases it a symptoms that can be cause by either bacterial infection in the roots causing plant roots to fail supplying food to upper plant part. I strongly recommend to plant improved seeds that is soaked with pesticides like

APRON STAR and SEEDPLUS

**Farmer:** Bean leaves are developing spots, what diseases is this?

**Expert: Edith Kadege**

Bean leaves developing spots and yellow color can be the cause of iron and manganese toxicity - I advise farmers to measure soil sample, farmers should test the soil and use fertilizers before planting.

**Presenter: Kristian Sumari**

That was our expert responding to some of our listeners questions, now lest got to the fields to talk to beans farmers and after discussion I will welcome our expert again to comment on the discussion

**Farmer: Geofrey Kalidi Ayo**

My name is Geofrey Ayo, I am beans farmer from Mgandini

**Presenter: Kristian Sumari**

We have seen diseases like fungus and rusting, tell us what other diseases attacks your beans?

**Farmer: Geofrey Kalidi Ayo**

Flower drops

**Presenter: Kristian Sumari**

Do you know what causes this?

**Farmer: Geofrey Kalidi Ayo**

Wind and drought condition

**Presenter: Kristian Sumari**

What happens after your beans drops flower?

**Farmer: Geofrey Kalidi Ayo**

There will be no harvest after

**Presenter: Kristian Sumari**

How do you fight this?

**Farmer: Geofrey Kalidi Ayo**

I asked our extension officer on what I can do or what pesticides I can use, there are no traditional method to tackle this

**Expert Edith Kadege**

Best way is to plant improved seeds, weed and spray pesticides before beans gives flower to avoid causing plant to drop flowers

Beans dropping flowers is a big loss, one flower drop equals to six beans seeds loss

I advise farmers to mix seeds with pesticides like APRON STAR and weed beans in time

**Presenter: Kristian Sumari**

Dear listeners we are still looking at diseases that attack beans in the field and here we are looking for farmers views we are still in the farms and this is another beans farmer

**Farmer: Jesephat Pallangyo**

I am a bean farmer from Maroroni Village. Here beans are mostly attacked by rusting diseases - it is very common! Also when it rains beans rot and insects punctures beans pods. In warm season seeds fails to germinate.

**Expert: Edith Kadege**

Do not plant beans in dusty area or when land is too dry they will struggle to germinate this is why you can see the shoots are weak and yellow in color, plant soon after first raindrops.

Also when it rain while seeds are still in the ground, rains will cause loss of heat in the soil that can damage the seeds

**Presenter: Kristian**

That was discussion with beans farmer, in the studio we have our expert Edith Kadege, Edith would you talk a bit more about effect of heat and seed germination.

**Expert: Edith Kadege**

I advise farmers to plant beans soon as first rain start, prepare your land before the land start

If you plant beans during hot season, when rain comes it will cause lot of heat to sink in lower soil that will cause seeds to burn and also it will make hard surface on top soil making difficult for beans shoot to come out on the surface

**Presenter: Kristian**

Thank you and after hearing from our expert and beans farmers now it is time to welcome again our expert to talk about beans viral and bacterial diseases as our topic today, we are going to start with bacteria diseases

**Expert: Edith Kadege**

These diseases can affect leaves, plant and seeds

It is common in rainy and wet season

Bacterial diseases can be transmitted from one plant to another plant, it can be transmitted by farming tools as well, we advise farmers to wash tool used from one field before using them on another field

Farmers should also plant seed mixed with pesticides like APRONSTAR or SEEDPLUS

**Presenter: Kristian Sumari**

What do bean plants look like if they are affected by bacteria?

**Expert:** **Edith Kadege**

Plant becomes wet and yellowish spots

You can spray BLUECOPPER or REDCOPPER on affected plant

There are two types of bacteria diseases. Common bacteria blight and bacteria halo. Common bacteria blight is common in wet areas and bacteria halo is common in dry areas

**Presenter: Kristian Sumari**

Before we talk about beans viral diseases let’s look at *soge ni kujuze* session for this week

This week in *sogea ni kujuze*;

You are advised to use improved seeds, practice crops rotations, weeding and tilting land after harvesting. Do not plant seeds from affected plant. If plant is affected by virus uproot plant and burn it.

Symptoms of fungal diseases are leaf rust, white spots on leaf and leaf folding.

Bacteria diseases are common bacteria blight and halo blight

**Expert: Edith Kadege**

The difference between common bacteria blight and Halo blight is in halo blight forms week yellow color and it is common in warm areas while common blight form deep yellow and it is common in wet areas.

**Presenter: Kristian Sumari**

Thank you Edith for your explanation, now let look at viral beans diseases.

**Expert: Edith Kadege**

A virus attacks seeds, leaves and beans pods, they cause beans leaves to fold. Viral diseases have no cure the best way is to plant improved seeds and practice crops rotations and do not plant on affected land at all.

Prepare land in time to kill plant remaining and diseases and do not replant affected seeds.

If you notice insect like beetle, white fly spray pesticides like KARATE,ASTR, SELECRON to stop them from spreading viral diseases.

**Presenter: Kristian Sumari**

How would the farmer know that his land is affected by viral diseases?

**Expert: Edith Kadege**

Beans plant will be green mixed with yellow color and leaves will be folded

If you noticed these diseases do not plant these seeds in the coming season

**Presenter: Kristian Sumari**

Last week we asked; which among the following diseases attacks your beans? Mnyauko

1. Common bacteria blight
2. Viral diseases
3. Other diseases

259 participants voted other diseases, 191 voted common bacteria blight, 130 voted viral diseases, 437 voted wilting diseases

**Expert: Edith Kadege**

Result shows that most participants voted wilting is more common. But wilting is not a diseases it is a result of diseases infection, plant wilt after being attacked by diseases like fungal diseases in plant roots causing plant to wilt . Results shows that even those who vote bacteria and fungus diseases they all meant to say Wilting diseases

**Presenter: Kristian Sumari**

Thank you for being with us since the beginning of this program, I hope you had a lot to learn, next week we are going to look at Insect attacking beans do not forget to tune in!

Thank you very much Edith Kadege our Expert from Selian Agricultural Research Institute - I am Kristian Summary, remember you can still participate in this program by beeping number; 0784 501 777

Keep tuning in to Radio 5!

Section 2: Swahili Transcription

Ni fahari yangu! Ndio ni Fahari yangu!

Mtangazaji: Kristian Summary

Karibu tena ndugu msikilizaji katika kipindi hiki cha Fahari yangu, katika kipindi hiki tunazungumzia uzalishaji wa zao la maharage, wiki iliyopita tuliangalia magonjwa yanayo shambulia maharage na wiki hii basi tuteendelea kuangalia magonjwa ya maharage lakini tutaangalia Zaidi magonjwa ya Virusi na Bakcteria, Lakini kabla ya hayo tutaangalia kwanza yale magonjwa yanayowasumbua wakulima mashambani kwao, Leo studio niko na mtaalamu wetu wakilimo Edith Kadege kutoka taasisi ya utafiti Seliani Arusha, Karibu mtaalamu

**Mtaalamu: Edith Kadege,** Asante sana

**Mtangazaji: Kristian Summary**

Mtaalamu atakuwa akijibu maswali yako wewe uliye shiriki katika paza sauti na pia auatangalia magonjwa ya maharage kitaalamu Zaidi

**Jingo**

Mama Fina kila mara wanatangaza tuwe wapaza sauti, Mimi tayari nimeshajiunga wewe Je? Jiunge sasa kwenye paza sauti

**Mama Fina:** Namba zao ninazo nilizipata katika kipindi cha fahari yangu. Mama Fina anapiga namba….

Beep beep beep, aaaah imekatika, nini tena?

Tulia mama fina watakupigia sasa hivi?

**Mama Fina:** Watapiga?...Simu inaitaa, ring ring ring!

Sauti kwenye simu: Karibu ndugu msikilizaji katika huduma ya paza sauti

**Mama Fina:** wananiuliza maswali nitaweza kujibu?

Sikiliza mpaka mwisho utaweza kujibu maswali

Baada ya mlio Bonyeza 2 kuweza kurekodi ujumbe wako na baada ya kumaliza kurekodi ujumbe bonyeza #

**Mama Fina:** Mimi nina itwa Mama fina kutoka Igunga ninalima maharage mekundu

Hongera mama fiana umeweka kuwa mpaza sauti sasa

**Mtangazaji; Kristian Summary**

Nasasa basi tunaendelea na kama nilivyokutaarifu hapo mbeleni tutaendelea kuangalia magonjwa ya maharage, embu tuwasikie wakulima wakituambia ni magonjwa gani yanashambulia maharage yao

**Simu za wakulima**

* Ugonjwa wa mnyauko unasababishwa na nini?

**Mtaalamu: Edith Kadege**

Ugonjwa wa mnyauko unasabishwa na vitu vingi san, inawezekana ni ugonjwa wa Bakteria umekula mmea kwa chini au Ugonjwa wa Baka pembe

Namna ya kupambana na ugonjwa huu ni kupanda Mbegu zilizo changanywa na mbegu kama APRON STAR, SEEDPLUS

* Maharage yanakuwa na mabaka na rangi rangi kwenye majani ni Ugonjwa gani?

**Mtaalamu:Edith Kadege**

Majani ya maharage kuwa na rangi rangi mfano kuwa na rangi ya manyano ni dalili za ugonjwa wa usumu wa manganize na chuma

Mkulima anashauriwa kupima udongo wake, alime na kutifua udongo wake na kuweka mbolea kama samadi

**Mtangazaji: Kristian Summary**

Shurkani mtaalmu kwa kujibu maswali haya, sasa moja kwa moja tuende shambani kuwasikiliza wakulima wa maharage na baada ya hapo nitamkaribisha tena mtaalumu aweze kutoa ufafanuzi kitaalamu Zaidi

**Mahojiano na wakulima wa Maharage**

**Mkulima: Geofrey Kalidi Ayo**

Mimi ni mkulima wa kijiji cha Mgandini

**Mtangazaji: Kristian Summary**

Tumeangalia magonjwa kama, kimamba, ukungu na Fungus embu nifahamishe magonjwa mengine ni yapi katika kilimo cha maharage

**Mkulima: Geofrey Kalidi Ayo**

Kupuputika kwa maua baada ya kuchanua

**Mtangazi: Kristian Summary**

Linasababishwa na nini?

**Mkulima: Geofrey Kalidi Ayo**

Inasababishwa na ukame na hali ya hewa

**Mtangazaji: Kristian Summary**

Nini kinatokea baada ya kupuputika kwa maua?

**Mkulima: Geofrey Kalidi Ayo**

Kutakuwa hakuna mavuno

**Mtangazaji: Kirstian Summary**

Unafanyaje kuepuka ugonjwa huu

**Mkulima: Geofrey Kalidi Ayo**

Nina mtafuta mtaalamu ili anishauri dawa gani ya kupiga, hakuna njia za asili za kupambana na ugonjwa huu

**Mtaalamu Edith Kadege akijadili kitaalamu ugonjwa wa kuputika maua**

Njia ya kuepeuka ugonjwa huu ni kupanda mbegu bora, mbegu zinaweza kuchanganywa na dawa zinazo zuia wadudu na magonjwa pia mkulima anapaswa kupalilia mapema kabla ya maua kuchanua na kupiga dawa mapema

Ugonjwa huu unaadthiri sana mavuno, ua moja linapodondoka unakuwa umepoteza kifuko kizima cha maharage chenye punje sita za maharage

Ni muhimu kuchanganya mbegu na dawa kama APRON STAR na kupalilia mapema

**Mtangazaji: Kristian Summary**

Naam msikilizaji bado tunaangalia magonjwa yanayosumbua maharage shambani na hapa tunafanya majadiliano na wakulima kujua uelewa wao wa magonjwa

Tuwasikie wakulima wengine hapa

**Mkulima: Jesephat Pallangyo**

Mimi ni mkulima wa Mharage Katika Kata ya Maroroni, maharage yana magonjwa kama Kutu yanasumbua sana na mvua zinaponyesha maharage yanaoza kabisa na pia Katapila wanakula na kutoboa migfuko kabisa

Joto linaadhiri sana kwasababu tulipanda maharage kwenye vumbi na mkulima akayanyesha yakiwa chini yakaota

Huku mvua inabidi inyeshe kwanza joto lizame chini ndipo upande maharage ndio maana kama unaona maharage yanarangi njaro na kujikunja kunja, na huu ndio ugonjwa wa joto

Maharage haya yalipandwa mwezi wa pili kipindi cha joto

Mtangazaji: Nini kingine kinaweza kuathiri maharage kama haya yenye maua

**Mkuliman: Jesephat Pallangyo**

Mvua zitakapo anza kunyesha maharage yataanza kupuputisha maua kwahiyo mmea unakuwa majani tu

**Mtangazaji: Kristian Summary**

Naam huo ulikuwa mjadala na mkulima wa maharage nilio ufanya na hapa ninaye mtaalamu Edith Kadege atazungumza juu ya mjadala huu, Edith Embu tuanza na tatizo la Joto katika Maharage

**Mtaalamu Edith Kadege**

Tunashauri wakulima kupanda maharage wakati mvua zinanyesha, shamba liandaliwe mapema kabla mvua hazijaanza.

Ukipanda kipindi cha jua kali maharage pindi mvua zinapo anza joto jingi litaenda ardhini na kusababisha mbegu kuungua na pia mbegu inapoanza kuota itakutana na mgandamizo juu ya ardhi na kupelekea mmea kuota kwa shida na kuwa na rangi ya njano

Panda maharage wakati mvua zimeanza kunyesha

**Mtangazaji: Kristian Summary**

Sasa ni wakati wa kuzungumza na mtaalamu wetu wa kilimo juu ya Magonjwa yanayosababishwa na Bakteria na Virusi

Tuanze na magonjwa yanayosababishwa na Bakteria, mtaalamu mpe mkulima uelewa kuhusina na magonjwa haya

**Mtaalamu Edith Kadege**

Magonjwa haya yanaweza kutokea katika Majani, mmea na Mbegu

Kinachosababisha kunapokuwa na mvua na hali ya unyevu

Unasababisha mmea kutoka mmea mmoja na mwingine na zana za kazi pia zinasambaza magonjwa tunashauri wakulima wanapaswa kuosha zana kabla ya kulima eneo jingine ikiwezekana achome moto kidogo

Pia wakulima wapande mbegu zilizo changyanywa na dawa kama APRONSTAR au SEEDPLUS

**Mtangazaji: Kristian Summary**

Mmea wenye magonjwa ya Bakteria unakuwaje?

**Mtaalamu Edith Kadege**

Mmea unakuwa na hali ya umaji maji na madoadoa flani yanakuwa na rangi ya unjano usio kolea, pindi mkulima akiona dalili hizi di ugonjwa wa Bakteria

Unaweza kupiga dawa ya BLUECOPPER na REDCOPPER

Kuna aina mbili za Bakteria, Bakteria Baka na Bakteria Halo, katika maeneo ya Mvua Bakteria Baka inatokea na Maeneo Makavu panatokea Bakteria Halo

**Mtangzaji: Kristian Summary**

Kabala hatujaangalia magonjwa ya virusi katika Mahaarge, embu tukujuze kwanza

Sogea ni kujuze name wacha nikujuze

Unashauriwa kutumia mbegu bora, kubadilisha mazao katika eneo, palizi na kulima shamba baada ya kuvuna inasemekana inapunguza magonjwa. Usitumie mbegu kutoka katika mmea ulioathirika na wadudu

Kwa magonjwa ya virusi ngoa na choma mmea ulioathirika

Magonjwa ya Fangasi dalili zake ni jani kuwa na kutu, jani kuwa na madoa meupe jani kujikunja

Magonjwa ya Bakteria ni Bakteria Blight na Bakteria Halo blight

Na hivi ndivyo nilivyokujuza

**Mtaalamun: Edith Kadege**

Utofauti kati ya Bakteria Baka na Bakteria Halo ni kwamba kwenye halo utakuta rangi njano iliyofifia na kwenye Baka jani linakuwa na rangi njano iliyokolea na Bakteria Baka itatokea sehemu za Baridi na Bakteria Halo itatokea sehemu za Joto

**Mtangazji: Kristian Summary**

Asante sana kwa ufafanuzi huo, embu sasa tuangalie Magonjwa ya virusi

**Mtaalamu: Edith Kadege**

Virusi wao wanashambulia kwenye mbegu na utamkuta yuko kwenye majani na majani yanajikunja kunja na mmea katika mifuko

Ugonjwa wa virusi hauna tiba, namna sahihi ni kijikinga kwa kupanda mbegu bora na kuzingatia kilimo mzunguko, shamba lililo athirika usipande kwa msimu ujao kabisa

Lima shamba mapema kuuwa masalia ya wadudu na usirudie mbegu zilizo athirika

Na ukikuta wadudu kama vidukari, inzi mweupe na vidukari kwa kupiga dawa kama KARATE,ASTR, SELECRON nk ili wasisambaze magonjwa

**Mtangazaji: Kristian Sumary**

Mkulima atafahamuje kuwa shamba lake limeshambuliwa na virusi?

**Mtaalamu: Edith Kadege**

Maharage yatakuwa na rangi ya kijani na mchanganyiko na njano, majani yatakuwa yamejikunja

Ukiona dalili hizi usipande mbegu hizi kwa msimu ujao

**Mtangazji: Kristian Summary**

Wiki iliyopita tuliwauliza wasikilizaji wetu swali hili; Ni yapi kati ya magonjwa yafuatayo yanashambulai maharage yako?

1. Mnyauko
2. Bakteria Baka
3. Virusi
4. Magonjwa mengine

Washiriki 259 walisema ni magonjwa mengine sawa na 25% watu 191 sawa na 19% walisema Bakteria Baka, Washiriki 130 swa na asilimia 13 walisema ni magonjwa ya virusi, washiriki 437 sawa na asilimia 43 walisema Ugonjwa wa mnyauko

Mtaalamu unamtazamo gani kuhusu matokeo haya?

Mtaalamu Edith Kadege

Matoke yanaonyesha kuwa ugonjwa wa mnyauko ndio umechukua nafasi kubwa

Ila mnyauko ni matokea ya shambulizi la wadudu, inatokana na maharage kushambuliwa na ugonjwa kama Baka pembe, chule au fangasi kwenye mizizi na kusababisha mmea kukauka

Mnyauko ni matokeo ya vitu mbali mbali tu

Ikiwa inaamanisha kuwa waliosema Virusi na Bakteria wanaweza wakawa wameangukia kwenye mnyauko

Hakuna ugonjwa wa Mnyauko bali ni dalili zinazojitokeza baadada ya shambulizi la wadudu au magonjwa kwenye maharage

Magonjwa mengine ni magonjwa unaosababishwa na Fangus kama Chule, Baka pembe, uweupe kwenye maharage, kutu yote haya ni magonjwa wa Fungus na ugonjwa wa Bakteria ni Bakteria Baka na Bakteria Halo

**Mtangazaji: Kristian Summary**

Asante mkulima ambaye umekuwa ukifuatilia katika kipindi hiki na nimatumaini yangu kuwa umepata mengi ya kujifunza

Juma lijalo tutaangalia wadudu wanaoshambulia maharage, usiondoke kando ya redio yako

Asante sana mtaalamu wa wadudu na Magonjwa Edith Kadege kutoka kituo cha utafiti Seliani

Mimi ni Kristian Summary kumbuka kuwa unaweza kushiriki na kujibu swali lawiki hii kwa kubipu namba; 0784 501 777

Endelea kusikiliza Redio 5!