**Cassava SMS information campaign**

This cassava SMS campaign was developed as part of the UPTAKE project (Up-scaling Technology in Agriculture through Knowledge and Extension). This project is exploring how SMS and radio can work together to support adoption of technology leading to increased productivity and food security, along with improved livelihoods for small-scale farming household.

**Radio partners:** Farm Radio International and Uhuru FM Radio

**SMS partners:** CABI Africa Soil Health Consortium team and the D2F team working with Esoko

This 35-message campaign ran in 2016 in Northern Tanzania.

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|  | **Cassava SMS English version**  | **Character****count** |  **Cassava SMS Kiswahili version** | **Character****count** |
| 1 | There is a cassava campaign by Kibaha-ARI in collaboration with other stakeholders to provide 30 SMS with agric tips on production of cassava for food & seed | 157 | Kuna kampeni na kituo cha utafiti Kibaha wakishirikiana na wadau wengine,ili upate jumbe fupi 30 zenye taarifa za uzalishaji muhogo kwa ajili ya vipando/chakula | 160 |
| 2 | Whiteflies spread 2 viral diseases, cassava mosaic disease & brown streak disease. Uproot & burn severely infested plants. Contact agric office for more advice  | 160 | Nzi weupe wanasambaza magonjwa ya virusi kama batobato na michirizi ya kahawia. Ng'oa na choma muhogo iliyoathiriwa, wasiliana na mtaalamu kwa maelezo zaidi  | 158 |
| 3 | If you see leaves falling off, know infection with cassava mosaic disease is severe. Even when tubers don’t show symptoms, do not use the cuttings for seed. | 156 | Ukiona dalili za batobato na majani kudondoka ni batobato kali,mizizi inaweza isionyeshe dalili za ugonjwa Usitumie na usisambaze vipando vya mmea ulioathirika  | 160 |
| 4 | If you notice a dry rot of tubers with cork-like appearance, know your cassava has CBSD. Do not plant cuttings from such plants even if there are no symptoms  | 158 | Ukiona mizizi ina ukavu na rangi ya kahawia muhogo una ugonjwa wa Michirizi ya kahawia,usipande wala kugawa vipando hata kama dalili hazionekani kwenye mmea  | 141 |
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| 5 | To control present CBSD/CDM infections, monitor for early detection, remove plants that show signs of disease in the field. Dispose infected plants by burning. | 160 | Kuthibiti mashambulizi ya ugonjwa wa Batobato na michirizi ya kahawia, kagua shamba kila mara. Ng'oa na choma mimea yenye dalili za magonjwa | 129 |
| 6 | To prevent cassava bacterial & viral disease next season, check with your agriculture office for availability of varieties resistance or tolerance to diseases | 158 | Kuzuia mashambulizi ya ugonjwa wa bakajani wasiliana na mtaalamu wa kilimo kupata vipando vya muhogo vyenye ukinzani wa magonjwa  | 129 |
| 7 | Weed-free cassava = a high yield. By hand, weed 3-4 weeks after planting + replace failed cuttings in new hole; second weed 8-12 weeks; final weed 20-24 weeks | 158 | Shamba safi=mafuno mengi. fanya palizi ya kwanza baada ya wiki 3-4, rudishia pandikizi ambazo hazijaota, palizi ya pili wiki 8-12 na ya mwisho wiki ya 20-24 | 156 |
| 8 | Plant the right cassava varieties suitable for your area. To find the right cassava variety for your area; contact your local extension officer  | 144 | Panda mbegu bora za muhogo zinazofaa katika eneo lako, kujua aina ya mbegu zinazofaa kwa eneo lako wasiliana na mtaalamu wa kilimo aliye karibu yako  | 151 |
|  | Plant the right cassava varieties suitable for your area. Kipusa, Mkuranga1, Kiroba, Kizimbani, Chereko are examples of the improved recommended varieties | 154 | Panda mbegu bora za muhogo zinazofaa katika eneo lako. Kipusa, Mkuranga 1, Kiroba, Kizimbani na Chereko ni baadhi ya mbegu bora za muhogo zilizo pendekezwa | 155 |
|  | Cassava cuttings of improved varieties mature faster, yield more & are tolerant to pest & diseases. If rainfall is low in a year use drought tolerant varieties | 159 | Penda mbegu bora kila wakati. Mbegu zilizoboreshwa hukomaa mapema, mavuno mengi, ni kinzani kwa magonjwa. Mvua zikiwa chache panda mbegu zenye kustahimili ukame | 160 |
|  | Improved cassava varieties have similar characteristics, as you monitor your field, remove plant that look different to avoid mixed varieties on the farm | 153 | Mbegu bora zina sifa zinazofana kuendana na aina, unapopanda mbegu mmea utakaoota utakuwa na sifa za mbegu, endapo utaona mmea wenye sifa tofauti ung'oe | 152 |
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|  | For more information on types of improved cassava varieties suitable for your district and where to get clean cuttings contact the agriculture office Kibaha-SRI | 160 | Kwa habari zaidi juu ya upatikanaji na aina za mbegu bora za muhogo zinazopendekezwa kupandwa kwenye wilaya yako, wasiliana na ofisi ya utafiti Kibaha-SRI | 155 |
|  | Improved cassava varieties are tolerant to diseases. If you plant improved varieties, you will get a higher yield compared to when you plant local varieties  | 157 | Mbegu bora zina ustamihilifu wa magonjwa. Kwa kutumia mbegu bora za muhogo kuna uwezekano wa kuzalisha mazao mengi zaidi ukilinganisha na usipo tumia mbegu bora | 160 |
|  | Storage of stems for cassava seed should be carried out within 4 weeks to avoid stems losing water or attacks by pests and diseases. Preserve stems in shade | 156 | Uhifadhi ufanyike ndani ya wiki 4 kwani mmea utapoteza maji hivyo kushambuliwa na wadudu na magonjwa. Hifadhi mbegu katika eneo lenye kivuli  | 141 |
|  | Store stems for cassava seeds under shade. The storage area should not be enclosed, as the stems need circulation of air. Water the area surrounding the store | 158 |  Simamisha marundo ya vipando sehemu yenye kivuli na mzunguko mzuri wa hewa kisha mwagilia maji eneo kuzunguka marundo hayo.  | 125 |
| 9 | If you carry cassava cuttings for long distance in an open vehicle they will loss moisture, dry & not germinate. Carry in covered vehicle & avoid bruising them | 159 | Ukisafirisha vipando vya muhogo mbali kwa gari bila kuvifunikia,vipando vitapoteza unyevu, viwe kavu na visiote vizuri. Beba kwa utaratibu ili kusuia uharibifu | 160 |
| 10 | If you choose land with fertile soil, prepare land early and control diseases as advised, you are likely to increase cassava yield to up to 25 tonnes or more | 157 | Ukichagua shamba lenye rutuba nzuri, utayalishe shamba kwa wakati/ulime muhogo kwa utaalum wa kutosha kunauwezekano wa kuongeza mazao kufikia hadi 25 na zaidi | 158 |
| 11 | Plot for planting cassava for seed should be pests/diseases free, not recently used to grow cassava for food and 100-200 meters from any other cassava field  | 157 | Shamba la mbegu liwe na rutuba ya kutosha, lisiwe na magojwa/wadudu, lisipandwe muhogo wa chakula na liwe umbali wa mita 100-200 kutoka shamba jingine la muhogo | 160 |
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| 12 | Land chosen for seed production must be certified by TOSCI (not done for food production), non-certified farms/farmers are not allowed to distribute cuttings | 157 | Shamba la mbegu (sio la chakula) lazima likaguliwe na taasisi ya kudhibiti ubora wa mbegu-TOSCI. Mashamba yasiyokidhi vigezo hayasambazi vipando kwa wakulima  | 158 |
| 13 | It is recommended that cassava cuttings be from disease free plants, 20-30cm long with 4-6 nodes and 2cm thick. Do not split the cutting, Cut with a sharp tool  | 160 | Vipando vya muhogo viwe kutoka mimea safi isiyo na magojwa, urefu wa 20-30cm na viwe na macho kuanzia 4-6 na unene wa 2cm. Usipasue kipando kata na kisu kikali  | 160 |
| 14 | For cassava cuttings to get enough moisture for germination, practice timely planting soon as first rain-drops. If your field is likely to be flooded, plant in terraces | 168 | Ili vipando vipate unyevu wa kutosha na kuota vizuri, panda kwa wakati-mvua za kwanza zinapoanza. Kama shamba linatuamisha maji panda muhogo kwa njia ya mitaro  | 160 |
| 15 | Place 2/3 of cassava cutting in the ground horizontaly /at 45 degree and facing west. This method reduce risk of cutting being attacked by pest and diseases  | 157 | kupanda kwa mshazari chomeka 2/3 ya kipando cha muhogo nyuzi 45 (hivi /) kwenye udongo. Njia hii hupunguza mashambulizi ya wadudu ikilazwa kuelekea magharibi | 158 |
| 16 | Planting cassava for seed- leave a space of 1m between rows and 50 cm stem to stem. Cassava for food is spaced at 1m between rows and 1m between plants | 151 | Kwa shamba la mbegu acha mita 1 kati ya mstari na mstari na 50cm shina hadi shina, kwa shamba la chakula acha mita 1 shina hadi shina na mstari hadi mstari  | 156 |
| 17 | Intercrop cassava with maize, yam, peanuts etc Space cassava 1 x 1 m. Plant row of 3.5–4 month maturity maize between 2 rows of cassava, maize-maize 20 cm apart | 160 | Kilimo mchanganyiko na Mahindi ya muda mfupi (miezi 3.5– 4) acha mita 1 kati ya mistari ya muhogo, panda mahindi katikati, acha 20cm kati ya mashimo ya mahindi | 159 |
| 18 | If you intercrop cassava with other crops, you will improve soil fertility, increase cassava yield and get more food crops for food/nutrition of your family  | 157 | Ukipanda muhogo na mazao mengine, utaongezambolea, kwenye mchanga, uongeze mazao ya muhogo na utapata mazao tofauti kisha lishe bora kwa jamii | 143 |
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| 19 | For cassava production, apply 20-30 sacks of manure/acre before planting. You will need small amount of NPK, TSP or Minjingu to support growth of leaves & roots | 160 | Ukitumia samadi, utahitajimagunia 20-30 kwa ekali. Weka kabla ya kupanda. Utahitaji kiasi kidogo cha NPK, TSP, Minjingu kusaidia ukuaji wa majani na mizizi | 158 |
| 20  | Apply fertilizer when soil is moist. Using NPK: Apply 25 g (5 soda bottle tops), 4-6 weeks after planting, repeat at 10-12 weeks and 16-20 weeks  | 145 | Weka mbolea kukiwa na unyevu. Kama unatumia NPK weka gram25 (vizibo 5 vya soda) wiki ya 4-6 toka kupanda, rudia gram25 wiki ya10-12 na gram25 wiki ya 16-20.  | 157 |
| 21 | To produce & supply cassava cuttings as a business, contact agric office for information on disease-free planting material and how to go about the business | 155 | Unaweza kuwa mzalisha na muuzaji wa mbegu bora za muhogo. Kupata mwongozo wa uzalishaji na uuzaji wa mbegu bora za muhogo wasiliana na mtaalamu aliye karibu  | 157 |
| 22 | Note down types of seed, source, planting date and size of the field, These will help you determine the harvest date (usually seed is ready after 8-9 months) | 157 | Andika aina ya mbegu, mahali ilipotoka, tarehe ya kupanda na ukubwa wa eneo unalopanda ili ujue lini utavuna (mbegu hukomaa kati ya miezi 9 hadi 18)  |   |
| 23 | Use either planting cassava vertically, slanting or covering with soil for seed production. Contact extension office on suitable method for seed production | 155 | Panda muhogo kwa njia tatu ambazo ni kupanda wima, mshazari na kulaza kisha kufunika kwa udongo. wasiliana na mtaalamu wa kilimo kujua njia bora Zaidi kwa mbegu | 160 |
| 24 | Avoid spreading diseases by sterilizing tools used for cutting planting materials before you reuse them. Rinse and dry before use | 130 | Ili kuepuka kusambaza magonjwa osha vifaa ulivyotumia kukatia vipando vya muhogo.Vifute na kuvikausha kabla ya kutumia tena  | 125 |
| 25 | Plant cassava for seed on well-drained, fertile soil. If soil is waterlogged, make mounds or ridges. Avoid shallow, stony, clay or wet soils and steep slopes | 157 | Panda muhogo kwa ajili ya mbegu katika udongo wenye rutuba, usiotuamisha maji. Kama maji yanatuama tengeneza mifereji/mitaro. Epuka udongo wa mfinyanzi na mawe  | 160 |
| 26 | A good plant for seed production must be-free of pest and diseases, healthy and free from any damages. Do not use the plant if you are not sure of its health | 157 | Sifa za mashina yanayofaa kutoa vipando bora-changua muhogo wenye afya, ambao hauna wadudu waharibifu na magonjwa na hauna dalili za kuharibika  | 144 |
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| 27 | To produce your own cassava cuttings for seed, select mature plant 9-18 month old. Plant older than this should not be selected, they are not good for cuttings | 160 | Kama unarudia mbegu ya muhogo chagua mmea ulio komaa kuanzia miezi 9-18 zaidi ya umri huo mmea usitumike kwani uchipuaji wake ni hafifu.  | 137 |
| 28  | Listen to radio programs on cassava farming on Uhuru FM, it is important for male & female to participate to improve production of cassava using improved seeds | 159 | Fuatilia vipindi vya kilimo bora cha muhogo kupitia Uhuru FM, ni muhimu jinsia zote kushiriki vipindi vya redio na uzalishaji wa muhogo kwa kutumia mbegu bora | 158 |
| 29  | Inspect your field regularly. If you see cuttings that did not develop, replant them before rain starts, examine the cutting and the hole before replacing it  | 158 | Kagua shamba lako kila wakati na endapo utabaini vipando ambavyo havikuchipua rudia kupanda kabla mvua hazijaisha. Kagua shimo na kipando kabla ya kurudishia  | 158 |
| 30  | If you pick too many leaves from your cassava the yield of roots will be reduced. Identify a few plants and use these to pick leafy green vegetables | 148 | Ukichuma majani mengi katika mti mmoja utaathiri ukuaji wa muhogo, tenga miti michache ambayo utachuma majani kwa ajili ya mboga | 128 |
| 31 | Avoid cutting or damaging root tubers during harvesting. Injured cassava tubers deteriorates faster due to ease of attack by pathogens (bacteria/virus) | 151 | Epuka kukata muhogo wakati wa kuvuna kwani muhogo uliokatwa au kuwa na majeraha huharibika mapema kutokana na kuingiliwa kwa urahisi na vimelea vya magonjwa.  | 158 |
| 32 | Storage of stems for cassava seed should be carried out within 4 weeks to avoid the stem loosing water and pests & diseases attacks. Preserve stems in the shade | 160  | Uhifadhi ufanyike ndani ya wiki 4 kwani mmea utapoteza maji hivyo kushambuliwa na wadudu na magonjwa. Hifadhi mbegu katika eneo lenye kivuli  | 141 |
| 33 | Store stems for cassava seeds in the shade. Storage areas should not be enclosed, as the stems need circulation of air. Water the area surrounding the store | 156 |  Simamisha marundo ya vipando sehemu yenye kivuli na mzunguko mzuri wa hewa kisha mwagilia maji eneo kuzunguka marundo hayo.  | 125 |
| 34 | Modern methods of drying have advantages compared to traditional ones- Example, cassava dried in driers is clean- the covers keep the dirt out  | 143 | Njia za kisasa sina faida nyinyi ukilinganisha na za kiasili. Mfano, muhogo uliokauswa kwa kaushio ni bora- kaushio limefunikwa si rahisi muhogo kupata uchafu  | 159 |
| 35 | Value added cassava is easy to store, transport, and safer to eat for consumers. Contact the agricultural officer for more advice on value addition options | 155 | Muhogo uliosindikwa ni rahisi kuuhifadhi, kusafirisha, na nisalama zaidi kwa walaji. Wasiliana na afisa wa kilimo kwa advice zaidi | 130 |
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