

Manufar wannan shirin ya hada da:

- wayar da kan masu cin gajiyar aikin kan amfani da dabaru na ISFM da hanyoyin magance rashin ni'imar kasa, da kuma matsalar gubar sinadaren da ke cikin karfe;
- Yin amfani da dabaru na ISFM;
- Fadakar da manoma kan aikace-aikacen ISFM a cikin tsarin noman da aka ba da shawarar akai;
- Samar da wata hanya ta wayar da kan jama'a don hada hada gwiwa a cikin tsarin aikin noma; kuma ba da hujjoji na amfani da fasahar ISFM.

Asali:

Lalacewar kasa sakamakon gubar da ke cikin sinadaren karfe ya kasance wani babban kalubale a jihar Neja, wanda ke haddasa karancin amfanin gona, karancin abinci da kuma ta'azzarawar iskar gas (Niger Consortium, 2021). Al'amarin , ya ci gaba da takaita yawan ni'imar kasa da yawan amfanin gona, dangane da mafi kyawun ayyuka. Misali, matsakaicin yawan amfanin shinkafa, babban jigo ne a jihar, ya kai 2.5mt/ha; Duk da cewa, an samu karuwar yawan aiki da kashi 60% zuwa 4.0mt/ha a fadin ayyukan AGRA tsakanin shekarar 2017 zuwa 2020 a jihar (Niger Consortium, 2021), wannan ya yi kasa da 7.0mt/ha da aka samu a karkashin ingantattun ayyuka (International Institute of Tropical). Noma (IITA), 2017).

A halin da ake ciki, dogaro da takin mai dauke da sinadaren magani a matsayin hanyar da za a bi don magance lalacewar kasa da kuma samun wadatar abinci tare da tsare-tsare na kasa da na duniya baki daya shi ma bai samar da sakamakon da ake so ba. Maimakon haka, yin amfani da takin mai magani na dogon lokaci ya zama wani abu da ke lalata muhalli, rashin dorewa, tare da haifar da babban tasiri ga amfanin gona a jihar. Baya ga wadannan, karancin wutar lantarki da manoma talakawa ke fama da shi, karancin takin da ake amfani da shi a kowace kadada zuwa tsakanin 11kg/ha zuwa 20kg/ha a fadin kasar nan (AGRA, 2020), idan aka kwatanta da 50kg/ha da sanarwar da Abuja ta bayar a shekarar 2006.

Haka ya sa dole a mayar da hankali kan lalubo madadi mai dorewa, irin su amfani da biofertilizers. Ko da yake, zaɓin sinadarai masu dauke kwayoyin halitta yana da babban tasiri wajen inganta ni'imar kasa ta zahiri, sinadarai na biochemical, da magance matsalolin muhalli; duk da haka, akwai bukatar a yi la'akari ga karancin matsalar adana sinadaren abinci masu gina jiki da ake samu a cikin kasa da ke alaƙa da wasu zaɓuka. Waɗannan cigaban sun nuna bukatar a jaddadda yin aiki da fasahar ISFM, wanda ya hada da duka zaɓin sinadari na inorganic da na kuma na halitta.

Ra'ayi da Kuma Ka'idar fasahar ISFM

Fasahar ISFM na nufin tsarin kula da ni'mar kasa wanda dole ya hada da yin amfani da takin mai dauke da sinadaren magani, abubuwan shigar da kwayoyin halitta da ingantattun kwayoyin cuta, haɗe tare da ilimin daidaita ayyukan gida don haɓaka amfanin gona da tattalin arziƙi, haɓaka yawan amfanin gona, inganta amincin abinci, da sakamakon cigaba da aka samu a tsakanin (Fairhurst, 2012; Cibiyar Kimiyar Kasa ta Najeriya, 2019 wato Nigeria Institute of Soil Science, 2019).

Hanyoyin da ake bi a halin yanzu na magance matsalar rashin ni'imar kasa sun dogara ne akan wadannan ka'idoji masu zuwa (Cibiyar Kimiyar Kasa ta Najeriya, 2019 wato Nigeria Institute of Soil Science, 2019):

- amfani da taki mai ma'adinai ko takin zamani wajen sarrafa taki bai wadatar ba wajen samar da aikin gona mai dorewa;
- Daidaita babban irin shuka sosai, ya zama dole a samu ingantattun sinadarai da za su magance cutuka-da kwari da ke damun shuke-shuke da kuma samar da sanadarai masu gina jiki. Yin kyawawan ayyukan noma da yawan dasa shuke-shuke da ciyayi na da matukar mahimmanci wajen tabbatar da ingantaccen amfanin gona da kuma magance karancin

Gudnarwa a karkashin ayyuka da kuma amfani da fasahar ISFM

- **Takin Biofertilizer:**
Takin Biofertilizer samfura ne na halitta, waɗanda rayayyun kwayoyin halittu suka haɗa su, suna amfani da tarkacen tsirrai da dabbobi. Dussan shinkafa shi ne babban abincin ciyarwa a karkashin wannan aikin, idan aka yi la'akari da damar da jihar ke da ita wajen noman shinkafa da kuma yawan masana'antun sarrafa shinkafa. Shirye-shiryen taki na biofertilizer da aka gabatar a karkashin aikin sun haɗa da biochar, takin, mycorrhiza da inoculant.
- ❖ Takin Biochar - Wani abu ne da ake amfani da shi a zaman gyaran kasa don inganta sinadarai na kasa domin samar da amfanin gona. Ana samar da shi ta hanyar sinadarin pyrolysis daga canjin yanayin zafi na biomass a karkashin 'yar iskar oxygen ko rashin iskar oxygen wajen amfani a cikin kasa a zaman gyara.
- ❖ Sinadarin Takin Compost- Yana nufin ruɓewa ko rugujewar abubuwan sharar kwayoyin cuta ta hanyar cakuda yawan kananan kwayoyin cuta (microbes) a cikin yanayi mai dumi, da iska.
- ❖ Sinadarin Takin Mycorrhiza - Waɗannan su ne kananan kwayoyin hallittun kasa waɗanda ke da babban karfin haɓaka girman shuka.
- ❖ Sinadarin Takin Inoculum - Wannan yana nufin abin da ake samu daga kananan kwayoyin cuta da ake amfani da su a cikin kasa ko jikin shuke-shuke ko amfanin gona. An fi son a yi amfani da shi a matsayin ruwa, maida hankali, garin tsaki-taski da garin hoda.
- **Takin Ma'adinai (Mineral Fertilizers)**
- ❖ Taki abubuwa ne waɗanda ke dauke da aƙalla ɗaya daga cikin sinadarai na shuka a cikin sinadarai. Yana da sinadarai masu narkewa a cikin kasa akan aikace-aikacen kuma yana samuwa wajen tushen shuka. Abubuwan gama gari sune taki na NPK, taki na urea, taki na potassium chloride (KCL) da taki na dimmonium phosphate (DAP).

- Agroforestry da Dabbobi. Hadā noman gandu daji da kiwo cikin tsarin noman manoma, inda zai yiwu.

Anfani da Hujjoji

- Yana haɓaka ingancin fasa duka da ingancin takin zamani da sauran abubuwan shigar da kayan gona.
- Yana inganta germplasm, aikin gonakin gandu daji da amfani da jujjuyawar amfanin gona da/kohaɗawa da legume. Al'adar da ke haɓaka lafiyar fasa don haka inganta haɓakar fasa ta hanyar haɗin gwiwa.
- An kafa fasahohin ISFM zuwa fiye da ninki biyu yawan amfanin gona da kuma fara yawan kuɗin shiga matakin gona da 20% - 50% (NISS, 2019)

Shawarwari da kuma aywatarwa.

- **Sinadaren Takin Biofertilizers**
Ana iya amfani da wannan kamar haka, ya dai danganta da shawarwarin masana'antun:
- ❖ Maganin iri: Ana sanya awon 200g na sinadaren rhizobium inoculant a cikin 300-400 ml na ruwa kuma a haɗa shi a hankali da kilogiram 10 na tsabar iri ta yadda za su manne kamar magani na danko sinadaren acacia, da dai sauransu.
- ❖ Tushen Tsiro: Ana haɗa takin mai dauke da sinadaren magani a cikin ruwa sannan a tsoma tushen tsiron na tsawon sa'o'i 8-10 sannan a dasa su. An fi amfani da shi don amfanin gona da aka dasa.
- ❖ Maganin Kasa: kilogiram 4 kowanne daga cikin shawarwarin suka bayar biofertilizers ana haɗa shi cikin kilogiram 200 na takin, sannan a ajiye shi daddare. Ana haɗa wannan gaurayen a cikin kasa a lokacin yin shuka.
- ❖ Ana iya amfani da takin gargajiya da na inorganic a matsayin rabin adadin da aka ba da shawarar akai don amfanin gona na musamman saboda cakudawa da aka yi.
- **Taki Maadanu** - kayyadaddun aikace-aikacen gona da aka ba da shawara a mataki na kasa da kasa.

Hanyoyin Yada Fasaha:

Samar da hanyoyin wayar da kan jama'a, horarwa, haɓaka samfuran ilimi, nuni, da sauransu.

Matakan kariya

Mahimman matakan tsaro sun haɗa da:

- Iska tana busar da tsaba masu rufi don yin sutura da kyau kafin dasa shuki;
- Karfafa yin amfani da safan hannu da abin rufe fuska da hanci;
- Yin amfani da kayan da suka dace domin guje wa abubuwan da suka gurbata da kwayoyin cuta, da sauransu.

Madogara

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Hukumar Samar da Abinci Ta K'asa

Inganta Harkokin Manoma da Haɓaka Ayyuka Gona, Hanyar Samun Kuɗi, Kyautata Rayuwar Manoma a harkar noman Shinkafa, Masara, Waken Suya, Wake, da Kayan lambu a Jihar Neja.

Magance Matsalar Gubar Da ake Samu A Sinadaren Karfe (Fe) Ta Hanyar Gyanar Taki A

TAKARDAR BAYANAI AKAN TSARIN KULA DA NI'MAR KASA TA HANYAR FASA HAR TAKI

