

Helping to Enhance the Livelihood of Resource Poor Farmers Through Cowpea Production

By Richard Bockarie

The Cowpea crop has been identified as one way to enhance the livelihood of resource poor farmers; for cowpea is one major source of plant proteins, feed for animals and a source of cash income. Apart from being eaten as vegetables, cowpea can help bring about soil nitrogen to cereal crops more so in areas poor in soil fertility.

In order to tap into these advantages especially for the benefit of our farmers, the Project “Enhancing Cowpea Productivity and Income for Sustainable Livelihood for Resource Poor Farmers in West Africa” in collaboration with the West and Central African Council For Agricultural Research And Development (CORAF/WECARD) and the Sierra Leone Agricultural Research Institute (SLARI) has successfully completed a two day intensive training for 60 farmers of farming groups in Bo and Moyamba respectively.



Cowpea aphid (*Aphis craccivora*)

Resource Person from IITA Reuben Solomon told the workshop Participants about the importance of cowpea and the climatic and soil conditions it thrives in, adding: it can be grown under rainfed condition, irrigation as well as residual moisture along river or flood plains during the dry season. He emphasized that the crop should not be grown on excessively wet conditions or water logging and poorly drained soils should also be avoided.

On the choice of cowpea varieties for planting, Solomon explained that it is based on among others maturity period, yield potential, drought tolerance, responsiveness to day length and the ability to withstand pest and disease attacks.

He also explained and discussed with participants what farmers need to do before planting. “The land can be sprayed with the chemical Glyphosate to kill emerged weeds or the land prepared manually”, he said. He explained and discussed the quantity of seeds needed per given land area considering the variety, seed size, cropping season and viability of the seed also recommending the selection of good seeds free of holes or wrinkles. He told them about the need to treat seeds before sowing with Binomial or related chemicals explaining: “this will enhance good germination and protect the seedlings from insect and fungi infection following emergence”, Solomon told the participants.

Trainer Solomon also explained about when to plant cowpea adding that it should not be planted too early or late as both will have serious negative effect on expected yields. “The important thing to do is to determine the outset and duration of the rains and more importantly the maturity period of the cowpea variety”, he explained what to do.

Solomon also discussed with them the spacing for sole cowpea (Planting cowpea alone) and sowing and spacing of cowpea with other crops, adding that cowpea seeds for most varieties should be sowed at a

depth of 2.5-5cm."Planting seeds more than this will delay emergence and or the seeds may rot resulting to uneven plant stands", he said.



Good Cowpea seeds for planting

Because cowpea fixes its own nitrogen from the air using the nodules in its roots, it does not require too much nitrogen fertilizer as cowpea requires more of phosphorus in the form of single super phosphate. "However, in soils seriously deficient in nitrogen, there is need to apply small quantity as a starter dose", Resource person Solomon clarified the point, giving the specifications for nitrogen and phosphorus fertilizers, quantity and time of application. The training workshop also examined the importance of weed control."Weeds are serious problems in cowpea production and when they are not put under control can host pests that significantly eat into the yield and quality of the grain", Solomon told the trainees. The workshop participants thus learned from the workshop the various types of weed control including zero tillage, manual and chemical weed control as well as parasitic weeds.

Learning about cowpea diseases with their management or control was one absorbing climax of the workshop. The participants were able to learn about the varying levels of damage diseases can cause to among others the leaf, stem and root of cowpea. The management or control measures were also learned including adoption of crop rotation, use of clean and disease free seeds and dressing them before planting, uprooting and burying infected plants as well as plowing contaminated topsoil to cut down on the incidence of pathogens or disease causing organisms.



Bad Cowpea seeds for planting

As insect pests are also very serious problem to cowpea production, the participants had the opportunity to learn about them. These among others were cowpea aphid, flower thrips, blister beetles, Maruca pod borer and pod-sucking buds. Harvesting, of cowpea and Storage pests and their control were also issues of explanation and discussion."The important storage pest of cowpea is the weevil."It is a field-to-store pest and severe infestation cause complete grain loss in storage", Solomon disclosed. The management or control of this pest was also explained and discussed.

The training workshop also examined safe and effective use of pesticides for cowpea production. Among many others, It looked at the need to be careful when using pesticides, pesticide names, types of pesticides; pesticide formulations, precautions in buying, transporting and storing pesticides. Participants also learned about measuring and mixing pesticides, calibrating a knapsack sprayer; spraying pesticides, maintenance of sprayers and disposal of empty containers.

Earlier at the opening ceremony, the National Focal Point of the Cowpea Project Mr. Moses T. Moseray gave the background to the three year project that involves five countries in West Africa including Sierra Leone. He encouraged the farmers to endeavour to learn what they should do to emerge as the best at the end of the day. "The good reward for your diligence, commitment and hard work will lead to

improving the quality of your lives, your respective communities and the country”, he told the participants.

Adding his voice to the occasion, Edmond Saidu who represented the Bo District Agricultural Officer urged the participants to respond to the opportunity and challenge.”Cowpea is becoming a big business as market for it is expanding”, he said. He urged them to at this initial stage focus on the acquisition of the relevant knowledge and training as” business often comes before pleasure”.