GLOBAL FORUM ON FOOD SECURITY AND NUTRITION

FSN-FORUM. DISCUSSION No.147. FSN-FORUM-No.1328

BY

ISINGOMA ANDREW

BSC AGRIC., UNIVERSITY OF RWANDA (UMUTARA POLYTECHNIC)

MSC-PLANT BREEDING AND SEED SYSTEMS; MAKERERE UNIVERSITY KAMPALA UGANDA.

POSSIBLE SOLUTIONS TO THE QUESTIONS RELATING TO THE DEVELOPING THE CODE OF CONDUCT FOR THE MANAGEMENT OF FERTILIZERS

December, 2017

 **QUESTIONS AND THEIR POSSIBLE SOLUTIONS:**

1. **Given the global scope of the Cocofer, do you think the objectives are appropriate? If not, how would you add to them or modify them?**

The 1to 4 focused objectives looks good, I would request to observe objective 1 and 5 because, both objectives seems to address the same goals (1.increasing food production-5.increasing food safety), therefore, I would suggest to replace objective 5 with other objective.

1. Suggestion of new objectives to be included: It would be good to focus on stabilizing organic farming systems, and promoting availability of chemical fertilizer plants, this is because here in Africa, mostly sub-Saharan Africa, chemical fertilizers are very expensive and very few farmers only can access. The organic fertilizers can be made by local farmer field schools agronomists, who can teach farmers to make them; this can help farmers who cannot access chemical fertilizers.
2. Another benefit of promoting organic farming system is; the building of soil structure and texture. This is because world population is increasing but land remains constant i.e does not increase. The increase of demography obligatory promotes soil erosion and degradation, a very problem which can be addressed by organic manure, soil table covering with bio-solids, and efficiency increase of yield production at available small land through affordable type of fertilizer (s) (organic).
3. The organic fertilizer have less impact on hazardous effects and pollutions compared to chemical fertilizer which is expensive and can be affordable by a limited no of farmers mostly in developing countries.
4. In developing countries organic farming and chemical fertilizer plants should be looking at, once the main objective among other goals of cocofer; is to promote global food production.
5. **How should be the Cocofer be structured to have the maximum positive impact?**
6. This should include paying attention on the standardization laws or policy related to manufactured fertilizers, because many chemical fertilizer manufacturers profit the need of fertilizer by farmers, and provide toxic fertilizers which have dissociative power like that of sodium element (Na), this just burns the crop and help nothing.
7. It should also include the science behind the use of fertilizers well narrated; this is because most agronomists don’t pay attention to the impact of too much fertilizer in the soil.
8. Too much Urea in the soil interferes with plant/crop physiology, translocations, and assimilation of photosynthetic products, it also brings disorders in source and sink crop exchanges,

This result to the crop physiological disorders: Psedo-heterosis; the type of heterosis whereby only vegetative (leaves and stems) part of the crop is favored, it keeps the crop in abnormal juvenile stage. Root tuber crops and fruit crops, grains, pulses, legumes are much affected.

1. Food safety in developing countries vulnerable to malnutrition (garden kitchens), Toxicology of fertilizers well narrated (long term health effect to people); general plant physiology effect (leaves and stems swelling syndromes), when chemical fertilizers is only used it brings soil leaching effect.
2. Economic effect, does my field need chemical fertilizers? What if I use organic? Does my crop need chemical fertilizer? What if I do without? Economic balance. This brings the need for soil history (new or old). Does my soil need urea or lime? What type of fertilizer do I need to apply? This document should include the science behind all aspects and effect of fertilizer application.
3. **Who would be the best audience for the Cocofer to meet our objectives and how could we broaden and diversify this audience to increase its influence?**
4. Keep it up for the first step of consulting audience: the audience to be looked-at, are primarily farmers the direct people who use fertilizers, the second people to consult are agronomist and technicians who work with farmers, the universities and agriculture institutions.
5. The way of broadening and diversify audience to increase its influence; should pay attention on the different levels of fertilizers need by farmers from different continents. There I mean, the hungry for fertilizer in developing countries is far higher than in the developed countries. How are you going to develop cocofer that fits farmers from that two different dimensions? I suggest consult scientist from those two dimensions and respect both.
6. **What should the scope of the Cocofer be? Which nutrient input sources should be included; only synthetic fertilizers, or also manure, bio-solids, compost, etc.? Should other products such as bio-stimulants, nitrification inhibitors, urease inhibitors, etc., be included as well?**
7. The scope of cocofer should envelop the balance of type of fertilizer needed according to the financial ability of farmers; most farmers in developing countries don’t have money to by chemical fertilizer at-all, and to make the matter worse, the fields are too small, here policy of organic amendment is the most important than chemical.
8. Strongly agree: these types of fertilizers are needed and should be included: synthetic fertilizers, manure, bio-solids, compost. But the economic importance based on which continent, farmers ability, soil age need, diseases associated, land size, crop types, and crop physiology consequences should be explained well.
9. The cocofer should include practical science of fertilizer and the science behind its influence on bio-sphere, it should not be just a higher levels of laws and policies, the cocofer should include tangible and technical science, because cocofer is science directly.
10. **Will the Cocofer assist in promoting responsible and judicious use of fertilizers? Why or why not? What other suggestions do you have to help the Cocofer meet our objectives?**
11. It depends, this will depend on how cocofer judicious use of fertilizers is paying attention on farmers ability and accessibility to which type of fertilizer, if the cocofer is not balance to farmers financial capability and their lands (economic status), definitely it will not reach its goals.
12. I would like to advise the facilitators consult the agriculture scientist from different countries.
13. I like the procedures used by world bank group-enabling seed business (EBA) during their annual global economic publications (where I use to collect need data, as local expert), EBA makes sure that, every country and their agricultural institutions participate. In addition, all scientists are consulted to participate, even social scientists from universities.
14. I would also advise to not drop the people you have started with, even the time of developing the mentioned objective, don’t do it alone.
15. Do the cocofer with all so that it will be of all, Thank you.

 By Andrew Isingoma (Plant breeder).