Annex 5

FNCA MB Workshop Question & Answer Sheet

Reporter	Question / Comment	Answer / Response
Bangladesh (Dr. Mamun)	Dr. A.N.K. Mamun, I just would like to clarify if the black rice that you collected recently is a pigmented rice. I presume that it is an upland traditional variety or landrace which is an important germplasm material. I am wondering if the black color appears only on the rice hull, but the grains are like your other accessions or the grains remain black even after cooking. (Mr. Aurigue, Philippine)	Its land race grain is also black even after cooking.
China (Prof. Shu)	1) I have a rice mutant line that I showed in my presentation, but because I have only one allele, I am thinking of performing genome editing to prove the responsible gene. Is it possible to work together on this gene? I just want to check if another allele shows a similar withering phenotype. Thank you very much for your consideration. (Dr. Hase, Japan) 2) Thank you very much for sharing with us your recent publication, Prof. Shu! Your report is very interesting, but I did not understand what you said about the hybrid rice, especially the japonica/indica hybrids. Does any of the parent of the hybrid, whether japonica or indica, a product of mutation breeding or possesses a mutated trait? (Mr. Aurigue, Philippine)	1) Dear Dr. Hase, it will be an honor to work on your gene via genomic editing to reconstitute the mutant phenotype you observed. Please just let me know the gene, the mutation and the phenotype. Thank you very much, Prof. Shu. It is very good of you to say so. I will write to you after making sure the segregation ratio after backcrossing to the wild type. (Dr. Hase, Japan) 2) Dear Mr. Aurigue, the hybrid is a cross between Jiang 79S (japonica, an early flowering mutant) and DR610 (indica, a doubled haploid line).
Indonesia (Dr. Puspitasari)	I am wondering if you obtain other seed colors (brown or red) of soybeans aside from black and white. Do the farmers or consumers like black soybeans? I hope that seed quality could also be evaluated to determine the value of mutant soybean varieties in tempe-making, especially for the black mutant which is expected to have better nutritional value. Thank you, Dr. Winda! (Mr. Aurigue, Philippine)	Yes Mr. Fernando, we have brown soybeans mutant from gamma irradiation of the yellow/white one. Black soybeans are needed mostly as raw material of soysauce in Indonesia. We use the yellow one for tempe nowadays, but originally tempe was made from black soybeans. Thank you for your interest.

Japan (Dr. Hase)	I appreciate your report, Dr. Hase! You spoke very clearly, and your discussion was easy to understand. It also shows the importance of collaboration with other member states. We look forward to the determination of the mechanism for salt tolerance in mutant rice varieties if not due to a novel gene. (Mr. Aurigue, Philippine)	Thank you very much for your comment, Mr. Fernando. I do not know how it goes, but I am very interested in the hyper-salt-tolerant mutant derived from the salt tolerant variety BRRIdhan47. I am glad if there is something we can work together in future.
Korea (Prof. Kang)	Thank you very much, Prof. Si-Yong Kang for sharing with us your two publications and comparison of the effects of proton beam and gamma rays! Your new research on mutation breeding of hops is very interesting! (Mr. Aurigue, Philippine)	To Dear Mr. Aurigue. Thank you very much for your interest and response to my presentation and hop research.
Malaysia (Dr. Hussein)	Your report is so inspiring and gives us hope that we could succeed too. Thank you very much and congratulations, my Friend Sobri! (Mr. Aurigue, Philippine)	Dear Mr Aurigue, thank you very much for your compliment and kind words. Clearly, the Philippine team did a very good job as well in mutation breeding research. Congratulations to you too. Thank you to all FNCA members and Cabinet Office of Japan for making this FNCA project a fruitful one. It is my pleasure to be part of this excellent FNCA team.
Mongolia (Dr. Noov)	The changes in seed color and spike type observed at M_2 would be most interesting to observe in barley. I wish you great success, Dr. Noov, in developing a variety with new seed color or better nutritional value. (Mr. Aurigue, Philippine)	
The Philippines (Mr. Cabusora)		
Thailand (Mr. Noenplab)	We really hope that you will discover a new gene for submergence tolerance if it is not Sub1 gene. We wish you all the best! (Mr. Aurigue, Philippine)	We are now trying to prove that the mutant lines for submergence tolerance carry the Sub1 allele by comparing the gene sequence to non-mutant varieties carrying the Sub1 allele. At the same time, we will look for QTLs involving submergence tolerance traits by QTL analysis of

		F2:3 populations from crosses between tolerant mutant lines and non-mutant susceptible genotypes. We hope to discover new QTLs for submergence tolerance in the mutant lines.
Vietnam (Dr. Le)	Instead of albino (white) variation in peanut, I believe that the observed chlorophyll mutation was xantha (yellow) variation. It would be interesting to note the chlorophyll mutations in the succeeding generations. I hope that you will also monitor the red seed coat color mutant, which might indicate higher anthocyanin level or enhanced nutritional value, as well as the mutant lines with more seeds or larger pods that may contribute to yield increase. Thank you very much, Dr. Le Duc Thao! (Mr. Aurigue, Philippine)	Dear Mr. Aurigue, many thanks for your comment. I also agree with the assessment that some are xantha, we will continue to evaluate the heritability of this trait in the next generation. Regarding the red seed trait, which is a valuable trait related to seed quality, we will continue to screen these lines along with the yield trait. We are hoping to be able to submit some new prospect lines for testing in 2022. Once again thank you and best wishes to you and the FNCA members.