Question 1

Can we properly maintain sustainability for agriculture and environmental sector?

Answer 1

It is a challenging issue and there are a lot of trade-offs - increasing agriculture production with the business-as-usual scenarios or the conventional technologies for the growing world population would be accompanied with GHG emissions and environmental pollution. That is why we need innovations, such as AWD, and BNI - improving resource use efficiency and emitting less GHG emissions to reduce environmental footprints per unit food produced.

Question 2

I would like to know if the impact of BNI technology on other nutritional parameters of plants (Wheat) has been measured.

Answer 2

Introduction of BNI-trait (i.e. Lr#n-SA translocation carrying BNI-capacity from wild-wheat) into elite-wheats did not disrupt their elite agronomic characteristics and yield potential, which is evident from higher grain yields of BNI-wheats compared to their iso-genic counterparts at various nitrogen applications.

In addition, introduction of BNI-trait did not interfere with bread-making quality of wheat grain or grain-protein contents or grain-protein quality. This was mentioned in our PNAS article.

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Here is a slide showing bread quality of BNI-wheat vs. control wheat, which was published in the supplementary section of PNAS article mentioned above.