#### RICE-DUCK FARMING IN VIETNAM

INO Mayu Seed to Table 5-6 May 2016

#### WHAT IS RICE-DUCK FARMING?

- A Japanese farmer, Mr. Takao Furuno, got idea from traditional Asian farming and systematized the method of 'Rice - Duck Farming' in early 1990s.
- By applying this method, farmers can grow paddies and ducks at the same time in the paddy field.
- This is low cost, environmental friendly and labor-saving farming system and very suitable for small-scale and poor farmers.

**RICE-DUCK FARMING HAS BEEN APPLIED BY FARMERS IN MANY PROVINCES OF VN** 

•Japanese NGO has introduced about this method to Vietnamese farmers since 1994.

- •Northern part of VN: Hai Phong, Bac Can, Son La, Hoa Binh
- Central part of VN : Hue
- •Southern part of VN : Ben Tre, Dong Thap...

# HOA BINH PROVINCE

- Japanese NGO introduced about Rice-Duck Farming system and Rice-Fish Farming system to Muong people in 2004.
- Over 500 households applied.
- Ducklings density: 25-30 ducklings/1,000 m2, higher intensity may decrease rice yield
- The best transplanting density: 30-35 clumps/m2 which reduce labor for transplanting and amount of seeds; higher plant density may limit ducks' ability of collecting food (the previous normal density was 45-50 clumps/m2)
- 2-week old ducklings should be released after transplantation has finished in 2 weeks
- Ducks made soil muddy by ploughing and farmers did not need to weed (thanks to ducks' activity)

# HOA BINH PROVINCE

- Farmers don't use chemical fertilizer or pesticides if they want to take a good care of ducks
- Rice productivity increased by 5-18 % or up to 30 % as rice seeds become more fertile
- Keeping ducks at the paddy field in the whole days and nights brings more effectiveness than just keeping in the daytime
- Harmful insects for paddy might be eliminated by more than 90%, ensuring the ecological balance in the paddy fields
- Evaluation of rice qualities of Rice-duck method is not available; therefore, the rice price is not different between conventional method and Rice-duck method.























## HAI PHONG

- Japanese NGO introduced about Rice-Duck Farming system in 1994.
- Over 12,000 households applied.
- Ducklings density: 50 ducklings/1,000 m2
- The best transplanting density: 25-30 clumps/m2 which reduce labor for transplanting and amount of seeds.
- 10 days old ducklings should be released after transplantation has finished in 10-14 days
- Ducks made soil muddy by ploughing and farmers did not need to weed (thanks to ducks' activity)

## HAI PHONG

- Rice productivity is same as conventional one.
- Keeping ducks at the paddy field in the whole days and nights brings more effectiveness than just keeping in the daytime
- Harmful insects for paddy, especially the channeled applesnail, were eliminated clearly, ensuring the ecological balance in the paddy fields.
- According to farmers, the rice quality of Rice-duck method was better than conventional one.
- Farmers tried to sell the Rice-Duck Farming Rice with higher price, but it was not succeeded.







## **BEN TRE PROVINCE**

- Japanese NGO introduced about Rice-Duck Farming system in 1996.
- This method has applied over 600 ha of paddy fields.
- Ducklings density: 25 ducklings/1,000 m2
- Farmers in Ben Tre usually apply direct-sowing.
- 10 days old ducklings should be released after transplantation has finished in 14 days.
- Ducks made soil muddy by ploughing and farmers did not need to weed (thanks to ducks' activity)
- Rice productivity is almost same as conventional field.

#### BEN TRE PROVINCE

- Could reduce the use of chemical pesticides by 40%.
- Saved 200,000 VND/1,000m<sup>2</sup> of labor force for manual weeding.
- Harmful insects for paddy, especially Brown planthoppers, were eliminated clearly.
- According to farmers in Ben Tre province, the rice quality of Rice-duck method is better than conventional one. They can sell Rice-Duck Farming Rice as clean rice with 15-20% higher price than conventional one.

### **BEN TRE PROVINCE**

- One of farmers in Ben Tre province discovered Rice-Duck-Shrimp Farming.
- After rice harvest, farmers noticed the appearance of shrimp in their fields. They started the idea to raise shrimp, fishes in addition to the duck in the rice field. Thanks to the tide which leads natural fishes and shrimps into the paddy field, it costs rice grower less for fish's breeds.
- In 2016, Seed to Table starts collaboration with farmers and academics from Can Tho University to test Rice-Duck-Azolla-Fish farming in Ben Tre province.







#### **THANK YOU FOR YOUR ATTENTION!**

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