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Improved yield and Zn accumulation for rice grain by Zn fertilization and optimized water management

通过锌肥和适宜的水分管理提高水稻籽粒产量及锌积累量

Key words: Rice, Alternate wetting and drying, Soil fertilization, Zinc

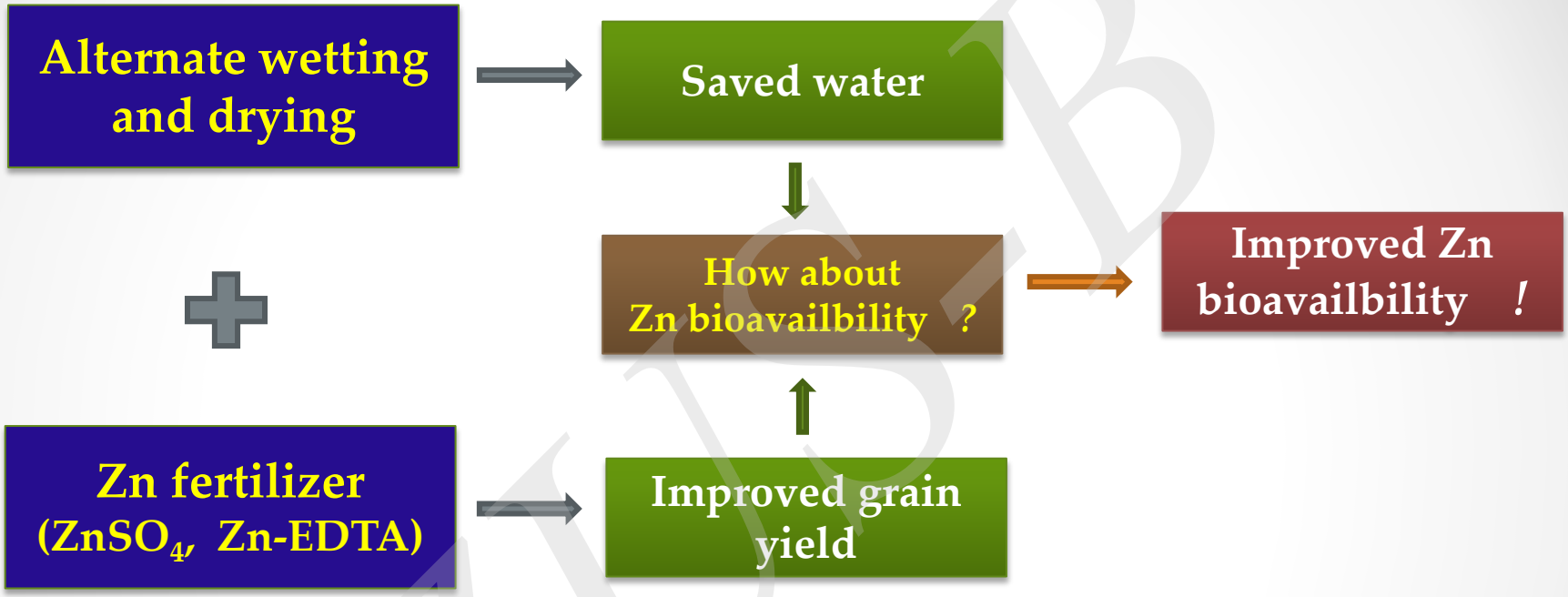
关键词：水稻；干湿交替；施肥；锌

- Zinc (Zn) deficiency occurs not only in traditional lowland rice, but also in some newly developed water-saving management, resulted in not only yield reduction but also Zn malnutrition in humans.

- Zn deficiency in rice can be alleviated through Zn fertilization with high solubility and Zn availability for the plant.

- Alternate wetting and drying is considered to be a promising water-saving strategy under an intensive rice production system, it remains debatable to achieve the dual goal of increasing grain yield and saving water.

- According to the current results, AWD represents not only a promising rice production system but also a strategy for Zn biofortification. AWD regime combined with $ZnSO_4$ fertilization was recommended in rice production systems to obtain higher yield, Zn concentration and bioavailability in grain.


Alternate wetting and drying
Saved water
How about Zn bioavailbility ?
Improved Zn bioavailbility !
Zn fertilizer ($ZnSO_4$, Zn-EDTA)
Improved grain yield