Nitrogen use efficiency for green onion (*Allium fistulosum*) in sands of the South-Central Coastal Vietnam using ^{15}N-labelling

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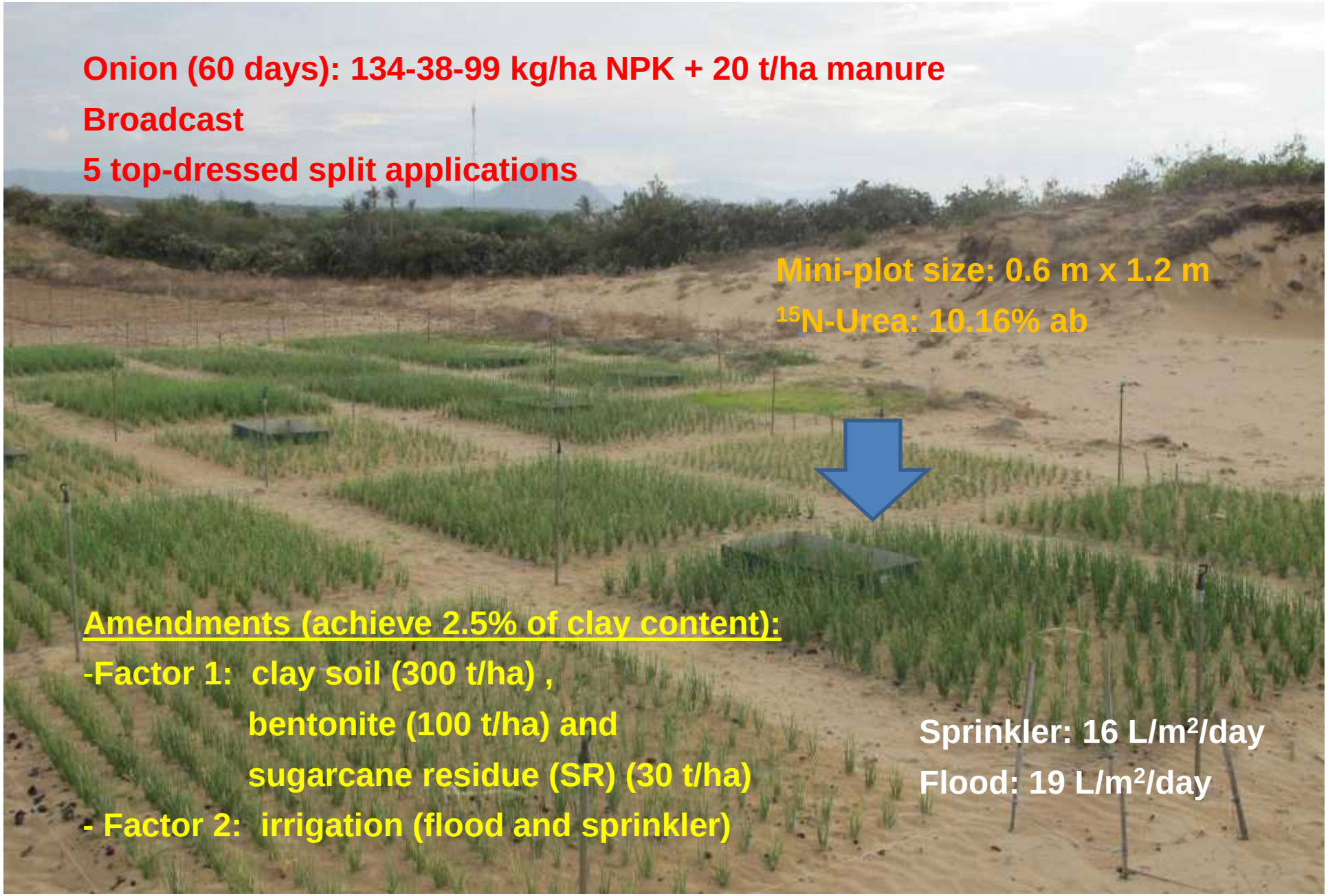
Materials and experimental design



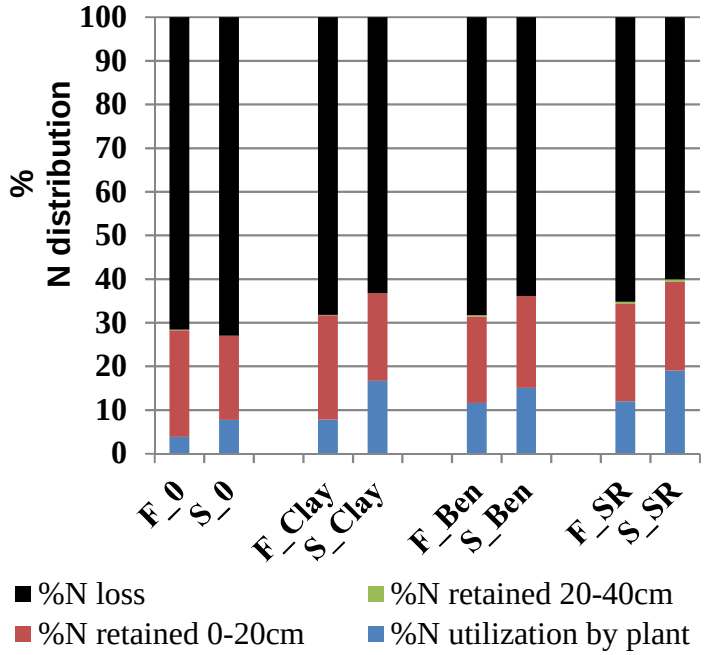
Findings

Dry matter yield and N uptake from onion crop , March-May 2015

Amend-ment	Irrigation	Dry matter yield	N uptake	N uptake from fertilizer
		kg/ha	kg/ha	kg/ha
0	F	558 d	11.6 d	*5.2 e*
Clay	F	940 d	20.8 d	10.4 de
Ben	F	1705 bc	33.9 bc	15.6 cd
SR	F	1506 c	32.1 c	16.1 bcd
0	S	980 d	21.0 d	*10.4 de*
Clay	S	2134 b	43.8 ab	22.4 ab
Ben	S	1879 bc	38.6 bc	20.1 abc
SR	S	2769 a	51.2 a	**25.5 a**
$LSD_{0.05}$		498	10.7	6.0

Ben: bentonite; clay; Clay: clay-rich soil; SR: sugar cane residue

Irrigation: F: flood; S: sprinkler;



Nitrogen distribution in soil-onion system

- **The amendment of sands with clay-rich soil, bentonite or sugarcane residue reduced N loss and increased both soil N retention and plant N utilization.**
- **Sprinkler irrigation on the sand increased fertilizer N use efficiency.**
- **The fertilizer N use efficiency even with the best combination of amendment and sprinkler irrigation was very low, and 63 – 73 % of fertilizer N was lost from the plant-soil system.**