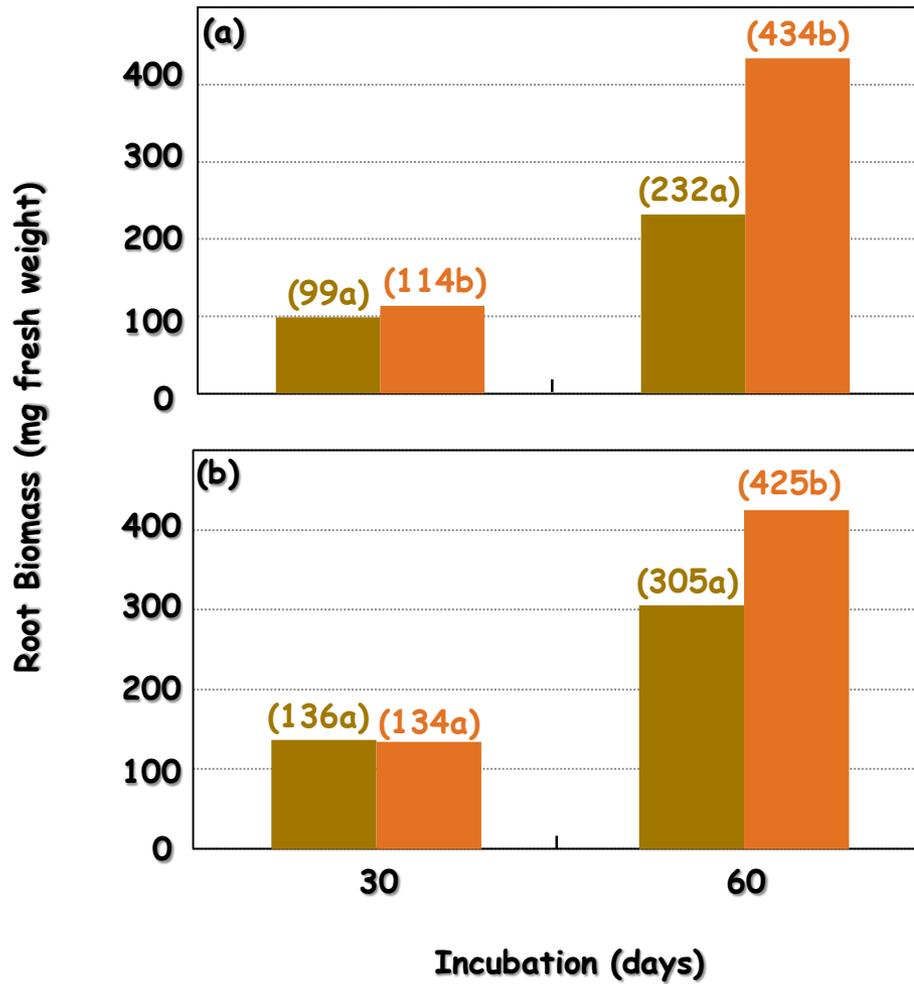


The adventure sedaxane

- ↪ Preliminary studies conducted in 2010 and 2011 did show a promoting root effect of sedaxane on several crops (rice, etc).

Problem: statistics, field conditions

- ↪ A first objective was to confirm these observations on two wheat cultivars, in controlled conditions "see paper Barchietto et al. in the dossier"



Root biomass biomasse of 2 wheat genotypes Inoui (a) and Isengrain (b) .



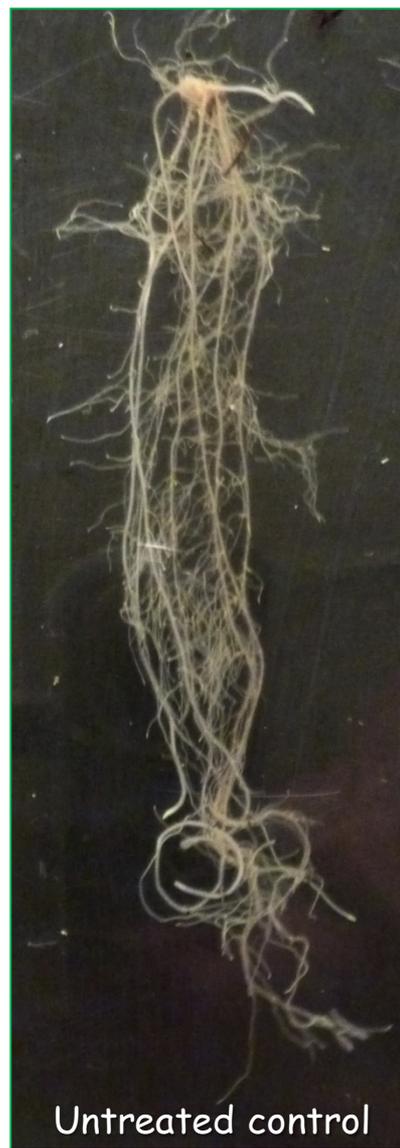


Figure 12. Comparison of the general aspect of root systems of wheat seedlings Inoui resulting from seeds untreated or treated with Sedaxane at 10 g a.i./qtaI after 60 days of incubation

Conclusions

- ↪ Sedaxane biostimulating efficiency seems also stronger on the alternative wheat cultivar Inoui than on the $\frac{1}{2}$ hiver cultivar Isengrain.
- ↪ Questions: Statistical demonstration in test tubes but what about wheat grown in greenhouse? On longer periods until harvest?
- ↪ New protocol implemented in 2013 to see if the biostimulation is observed in conditions closer to the field.

Table 3. Evaluation of the effect of seed treatment with 10 g a.i./qтал of Sedaxane on the **root system development of wheat seedlings cv. Inoui after 70 days of cultivation in greenhouse**

Treatment	Length (cm)	Weight (mg fresh weight)
Untreated control	48.78 ^α	34.30 ^a
Sedaxane at 10 g a.i./qтал	49.28 ^a	<u>45.94^b</u>

^α Each value corresponds to the mean of 30 observations per treatment. Values in a same column followed by the same letter are not significantly different according to the Newman-Keuls test (P< 0.05)

- Our study clearly shows that Sedaxane induces an important increase of root biomass and to a lesser extent on the yield (total grain weight per plant).
- This increase of the biomass of plants protected with Sedaxane is accompanied by a more or less significant increase of the amount of total carbon and total nitrogen in the roots, the leaves, but also the grains relative to the unprotected plants.
- Next step? Dissecting the mode of action but wheat is not a convenient model!!

What's the next step?

Study the mechanism of action

Toolbox available but.....

Arabidopsis thaliana, recheck the effect of sedaxane

We do hope to make significant progress by end 2015