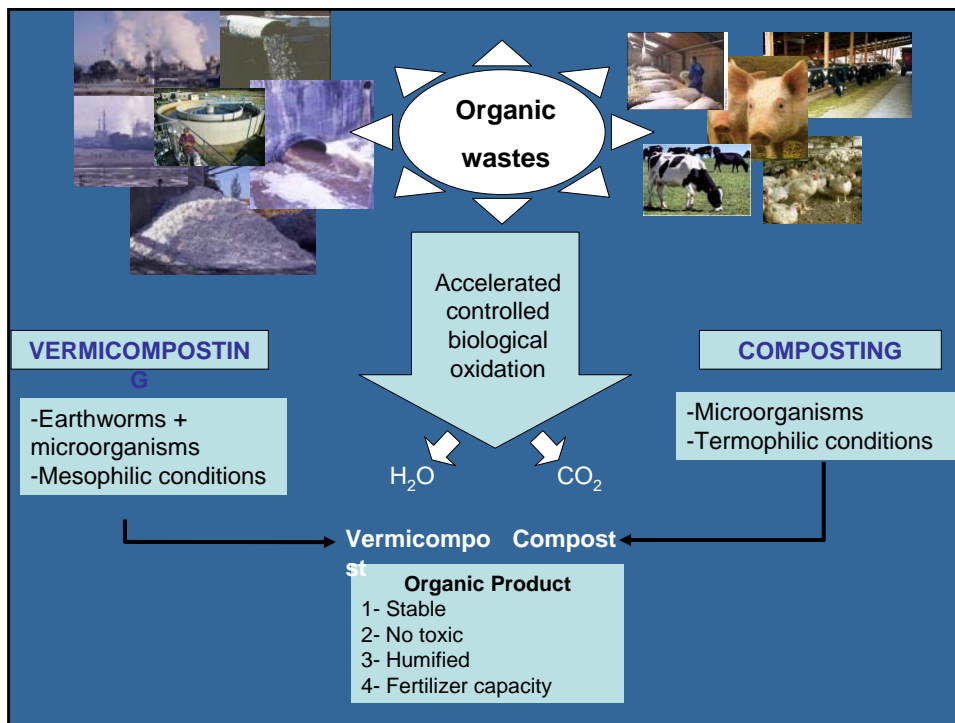


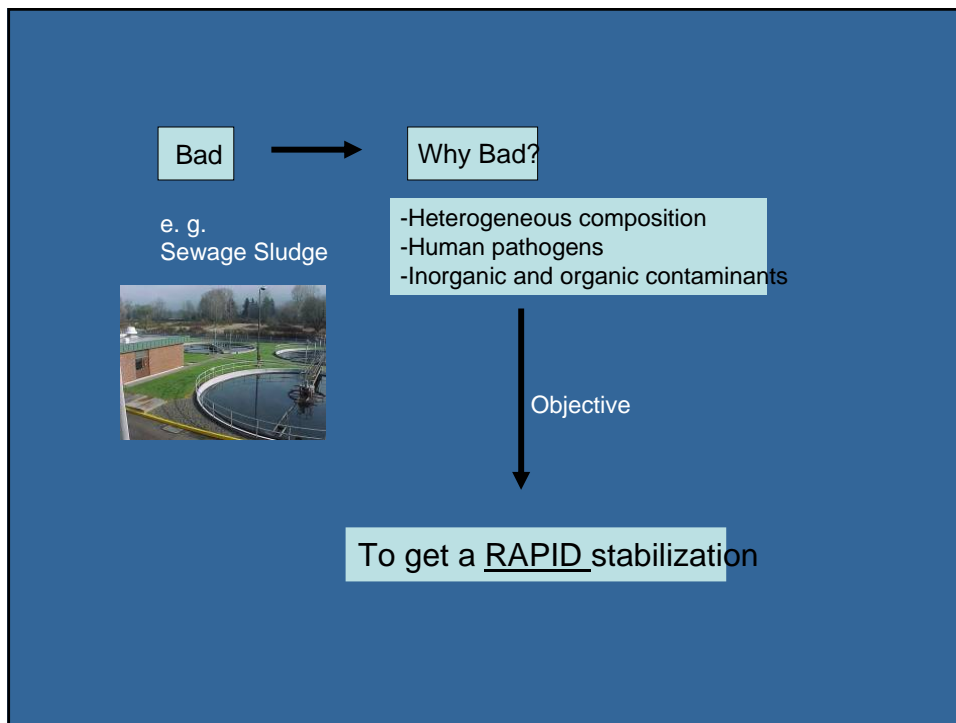
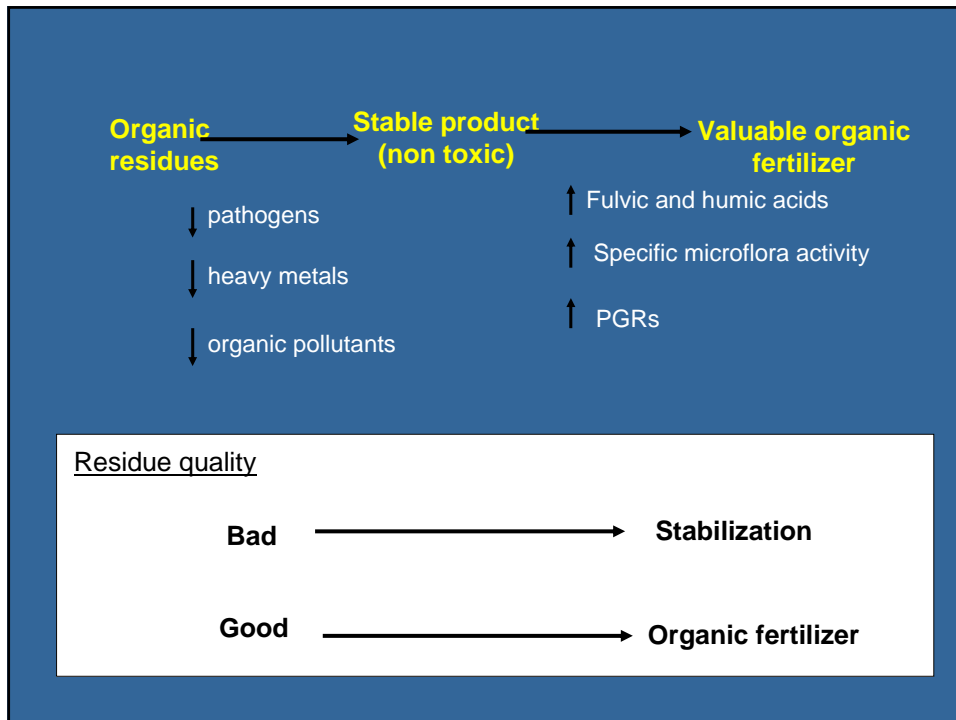
# Paper sludge vermicomposts as amendments in the potting media of peppers

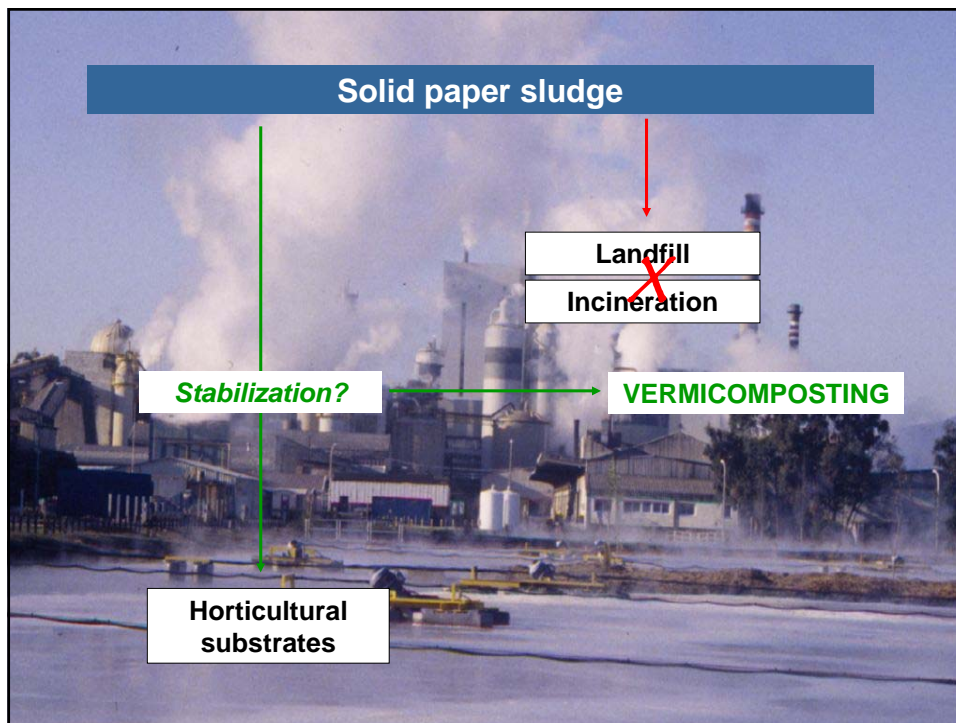
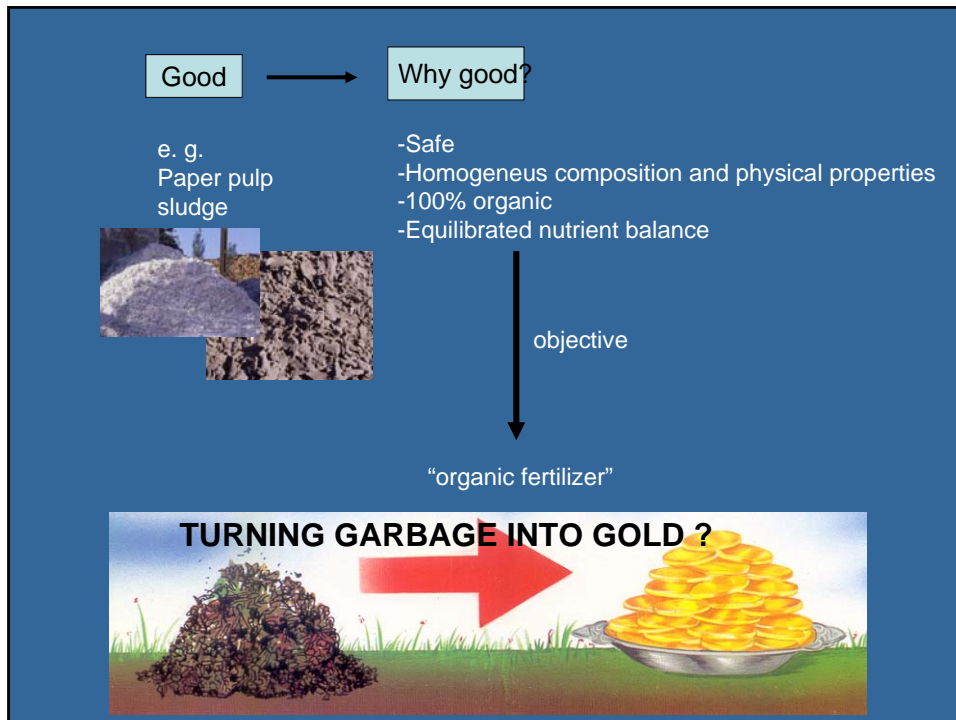


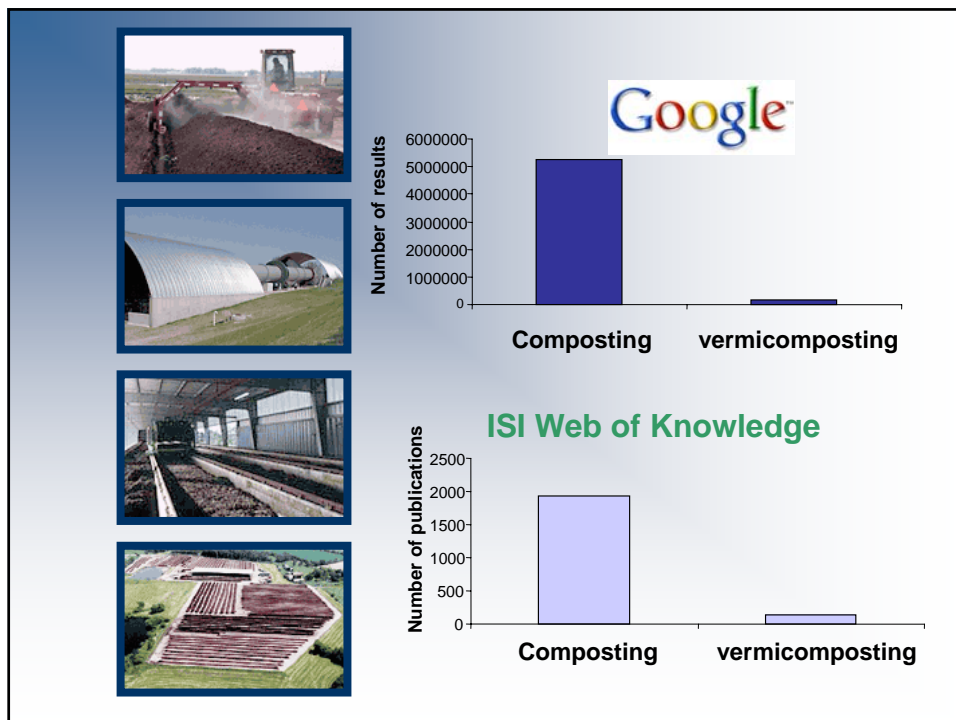
Cristina Lazcano <sup>1</sup>, Luís Sampedro <sup>2</sup>, Rogelio Nogales <sup>3</sup>, Jorge Domínguez <sup>1</sup>

<sup>1</sup> Departamento de Ecología y Biología Animal. Facultad de Biología. Universidad de Vigo.  
<sup>2</sup> Departamento de Ecología, Centro de Información e Investigación Ambiental de Lourizán.  
<sup>3</sup> Estación Experimental del Zaidín (C.S.I.C.). Granada



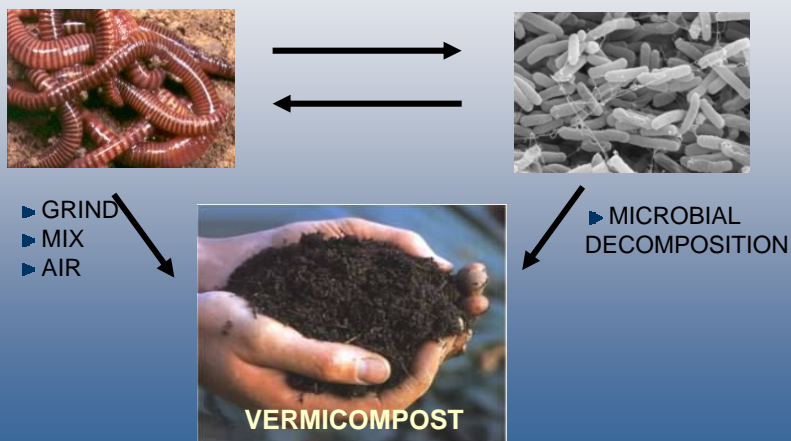


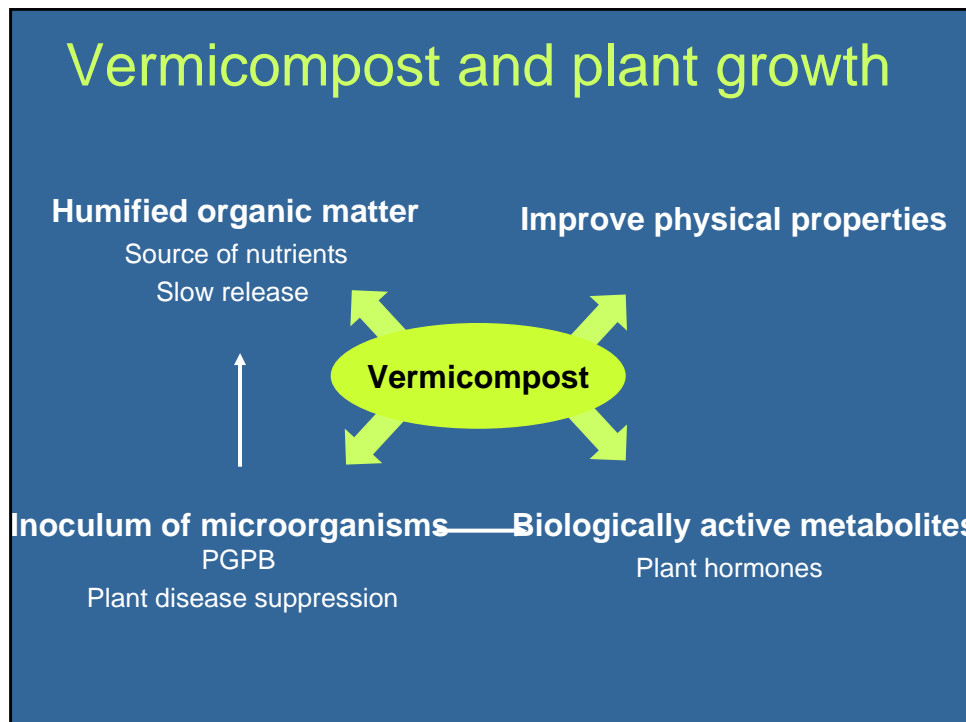




## Vermicomposting

Vermicomposting is an accelerated process of bio-oxidation and stabilization of organic wastes that involves interactions between earthworms and microorganisms.





## Vermicompost and plant growth







✓ Environmentally friendly fertilizer : organic agriculture

✓ High quality fertilizer

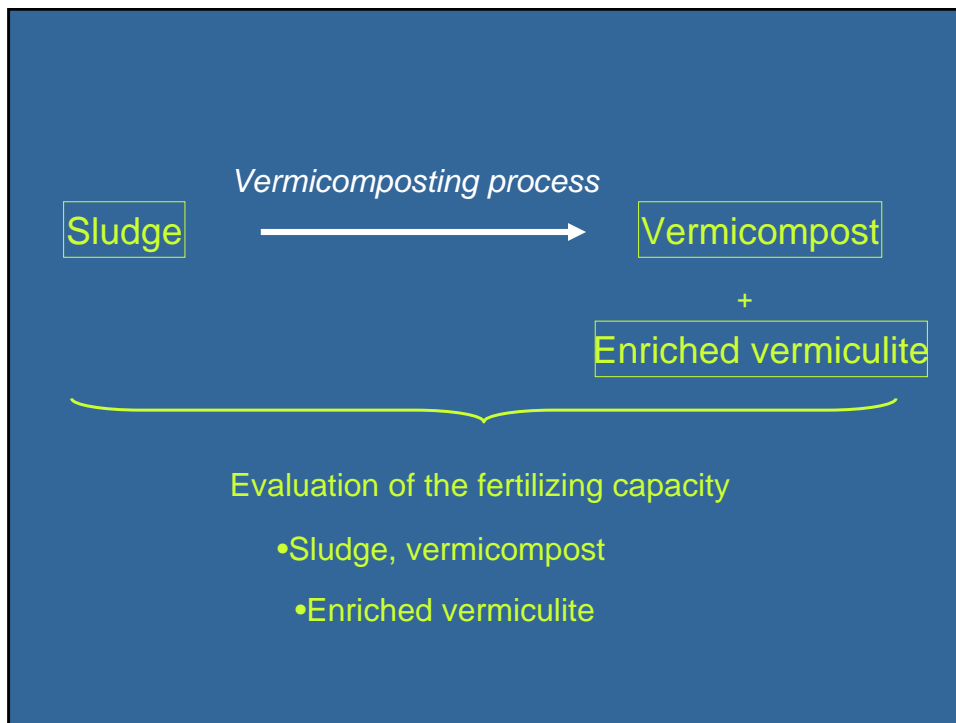
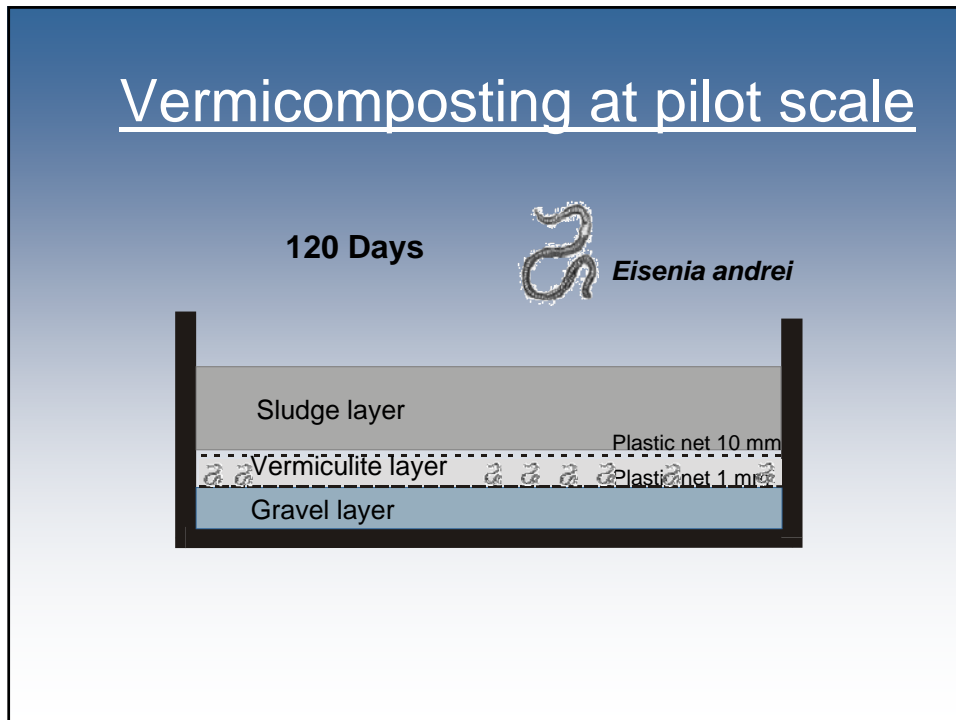
## Objective

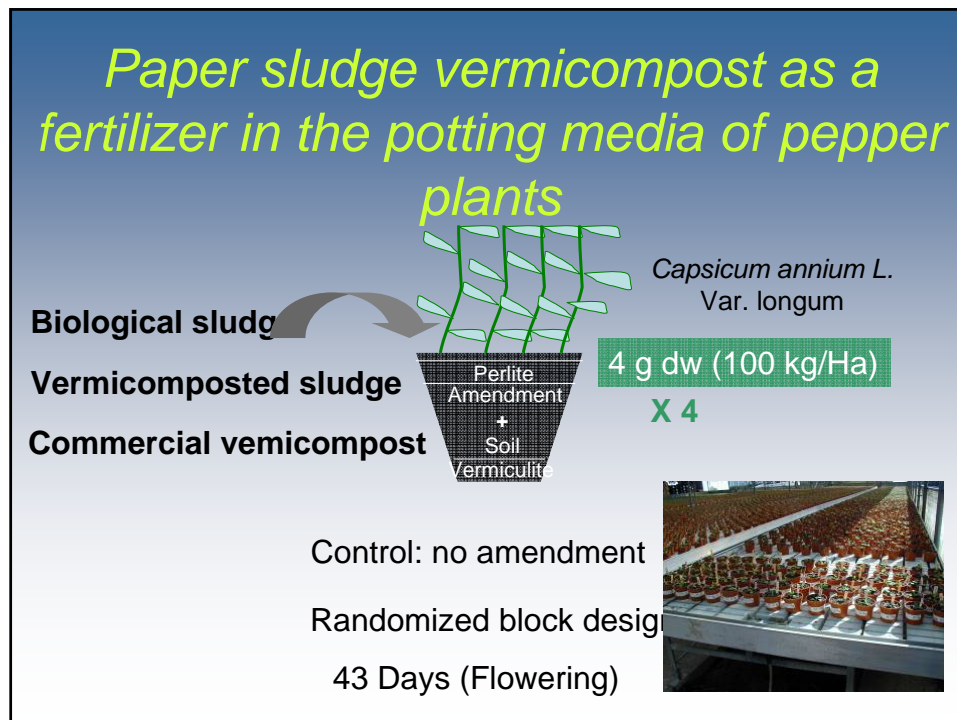
To evaluate the fertilizing capacity of  
solid paper sludge and solid paper  
sludge vermicompost

## The sludge

**Biological sludge**

<b>pH</b>	7.30
<b>EC</b>	0.19
<b>N (g·kg dw<sup>-1</sup>)</b>	18.98
<b>P (g·kg dw<sup>-1</sup>)</b>	1.44
<b>K (g·kg dw<sup>-1</sup>)</b>	n.d.





## Growth assessment

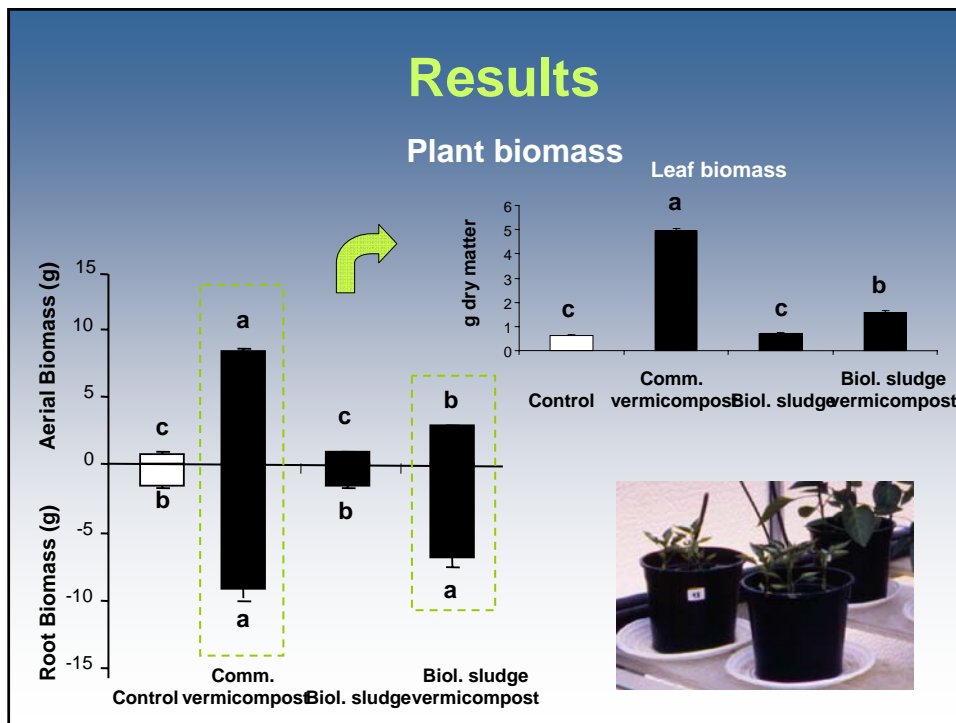
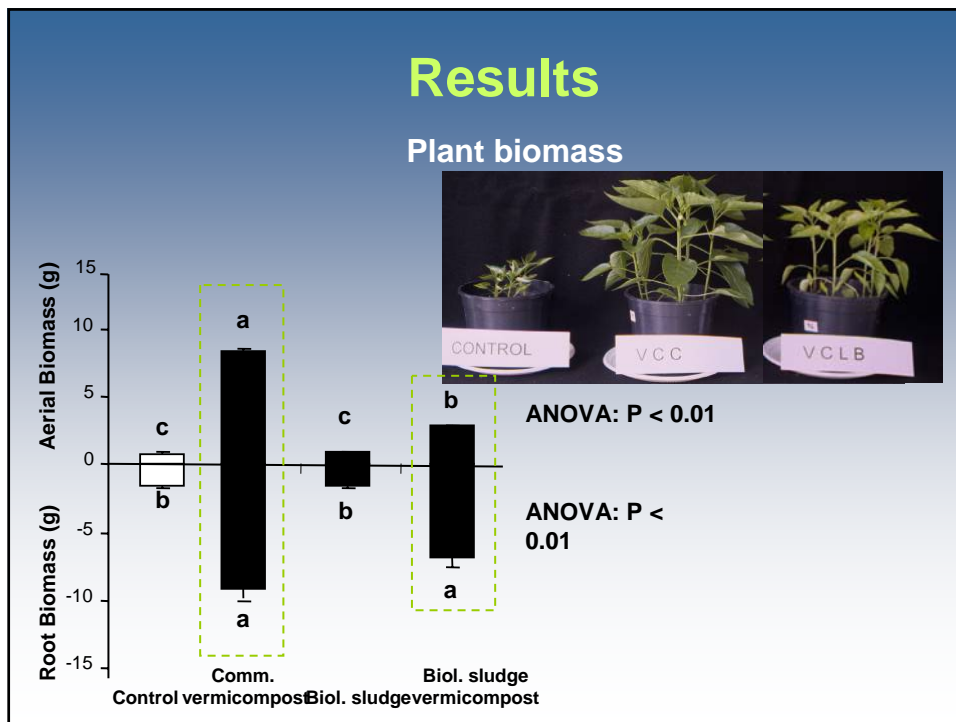
- Biomass: Aerial, Root Biomass
- Leaf area
- Number of leaves

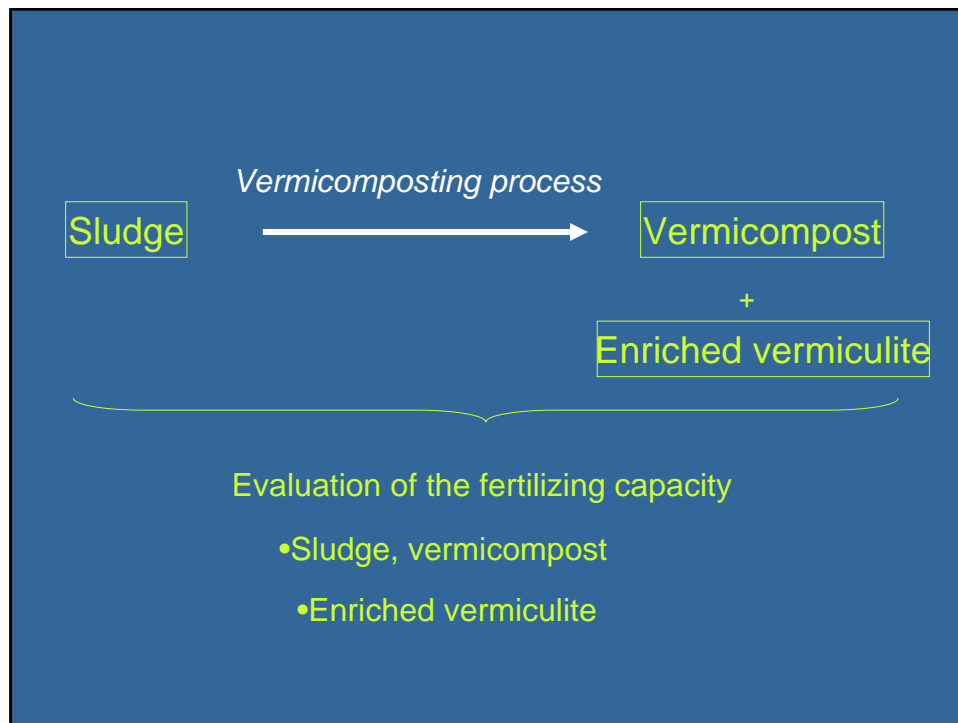
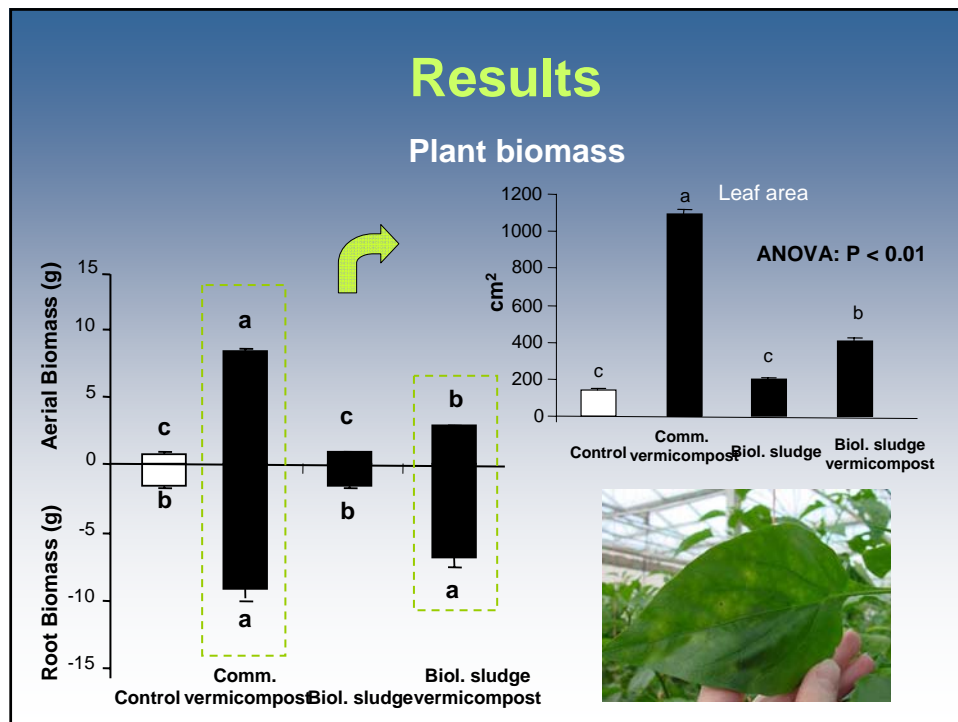
## Nutritional status

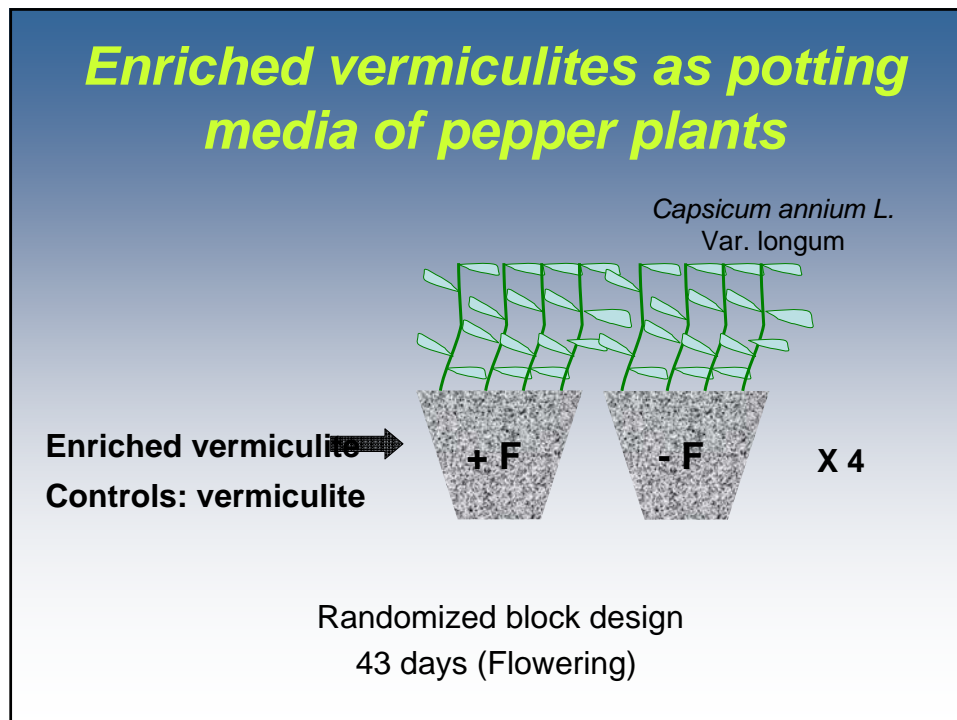
- N, P, K leaf content

## Data analysis

- One-way ANOVA, Tukey HSD







### Growth assessment

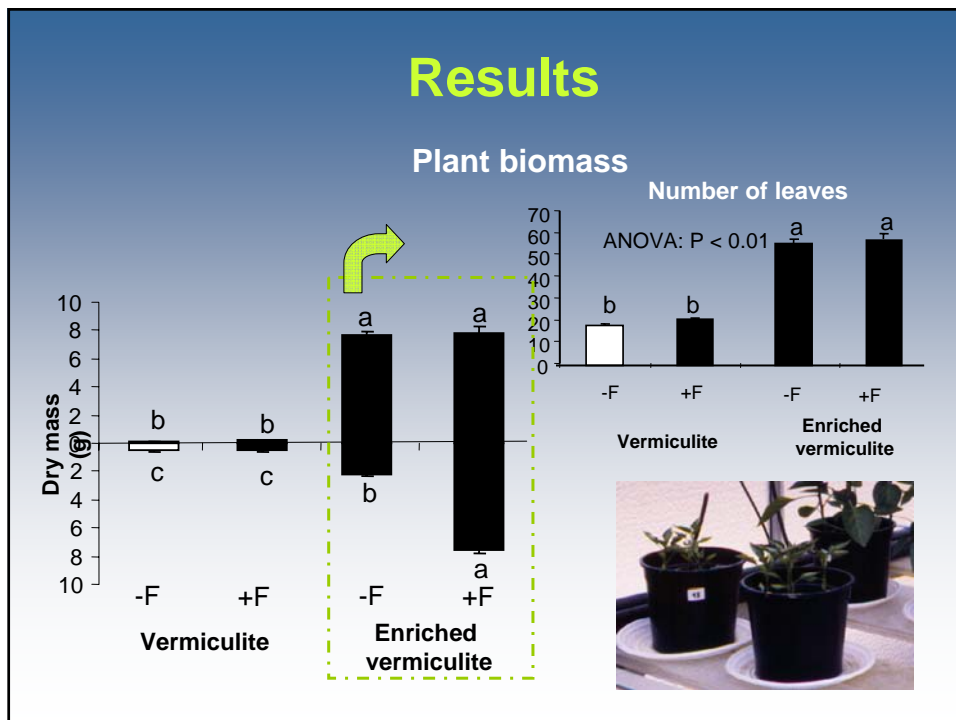
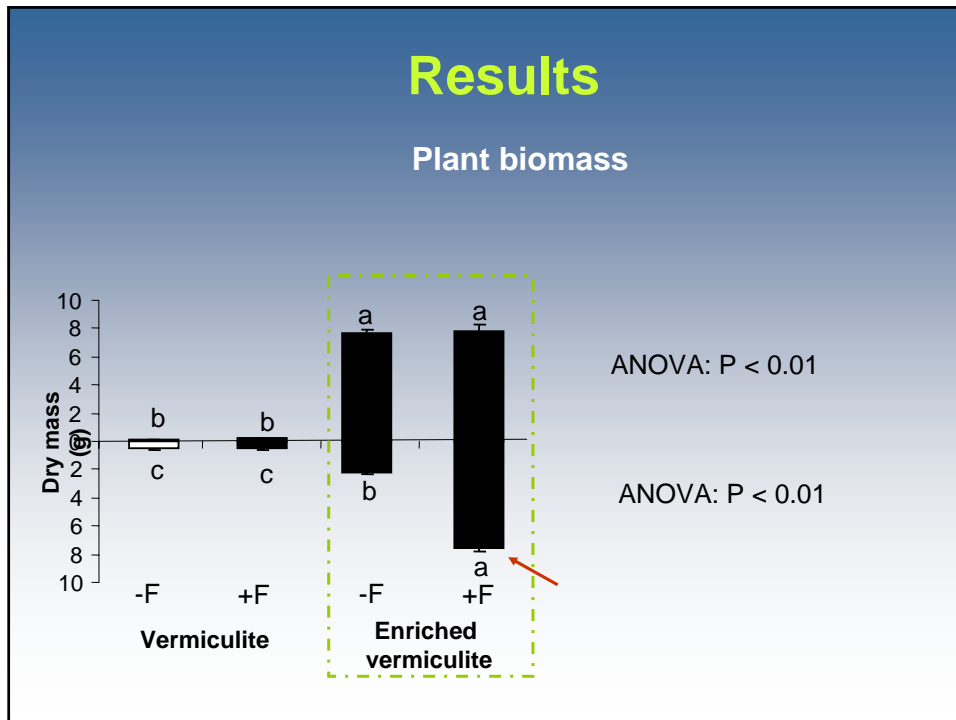
- Biomass: Aerial, Root Biomass
- Leaf area
- Number of leaves

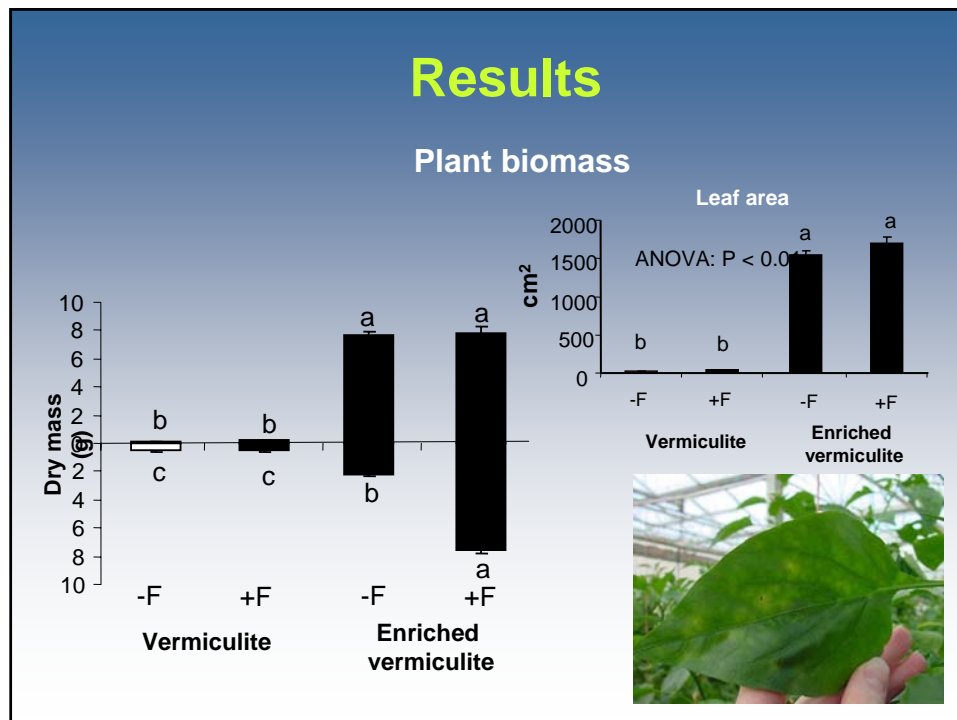
### Nutritional status


- N, P, K leaf content

### Data analysis

- One-way ANOVA, Tukey HSD







## Conclusion

**S**

**Biological paper pulp sludge vermicompost and its by-product constitute valuable resources as pot amendments able to enhance plant growth to a bigger extent than mineral fertilizers and at very low doses**



## Conclusion

S

**Vermicomposting  
increased  
significantly the  
fertilizing capacity of  
the sludge and  
therefore, it  
constitutes a good  
alternative to waste  
disposal, increasing  
the value of this  
organic material.**