# The XPEST modelling platform: an online tool to help design and use models that predict crop losses as a function of injury profiles in given production situations

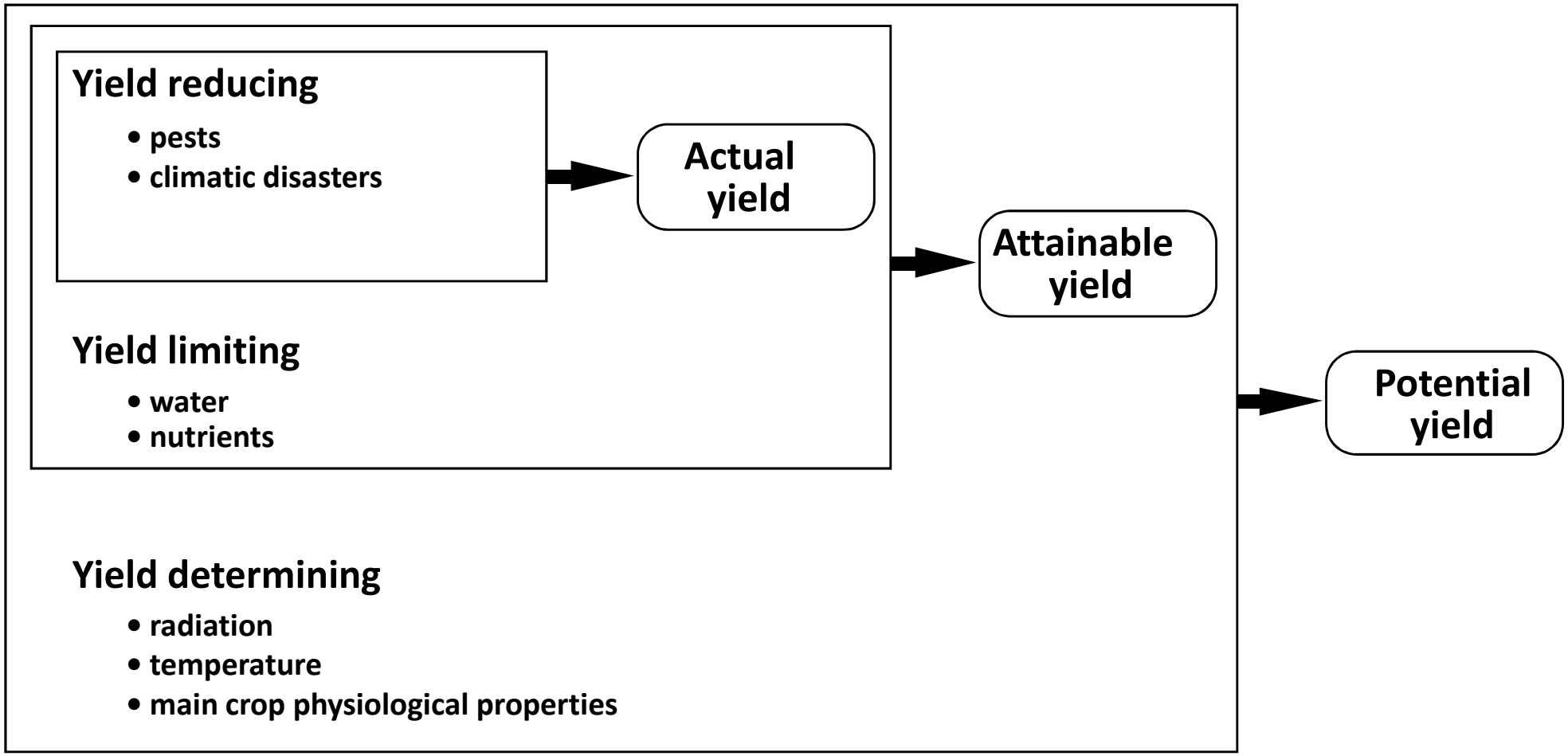
Jean-Noël Aubertot

endure
diversifying crop protection

**Summer School 2016**

**The role of IPM in mitigating pest development under climate change–modelling approaches**

# Yield defining factors

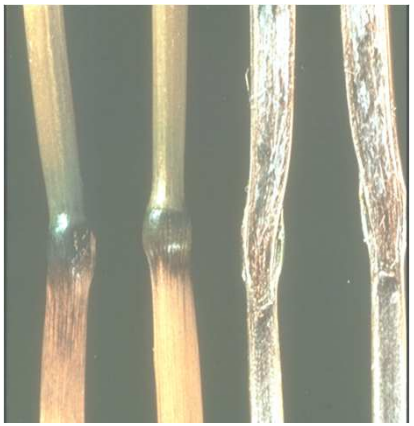



Zadoks, J.C., Schein, R.D., 1979. Epidemiology and Plant Disease Management. Oxford University Press, New York.

Rabbinge, R., 1993. The ecological background of food production. In: Chadwick D.J., Marsh, J. (Eds.), Crop Protection and Sustainable Agriculture. John Wiley and Sons, Chichester, UK, pp 2-29.

# Multiple pests









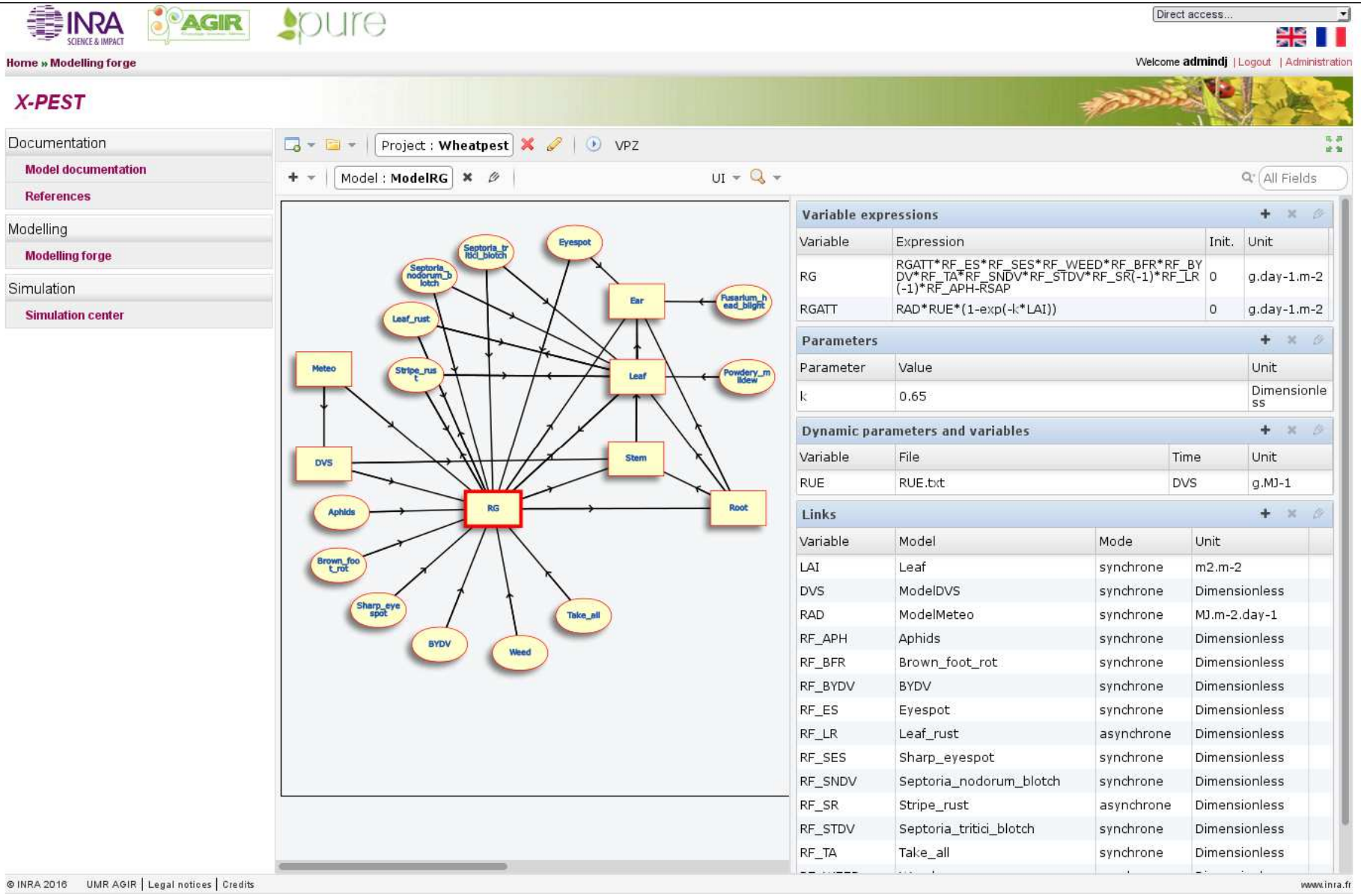



# SUNFLOWERPEST V1.0

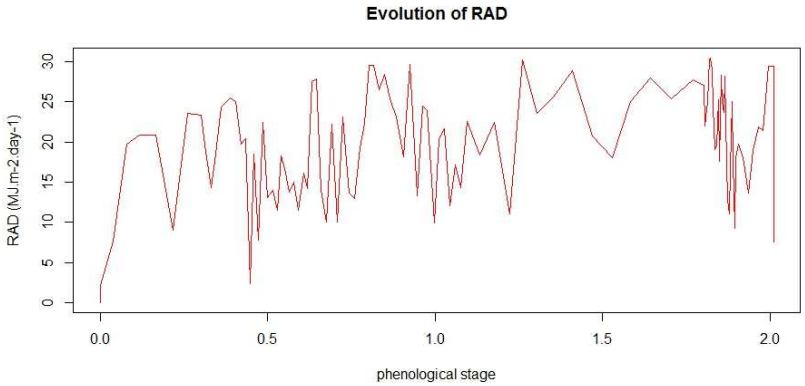
http://147.100.164.75/xpest

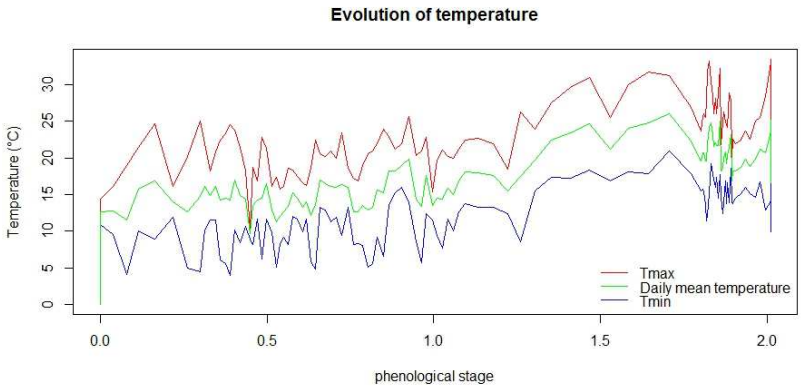
Demo…

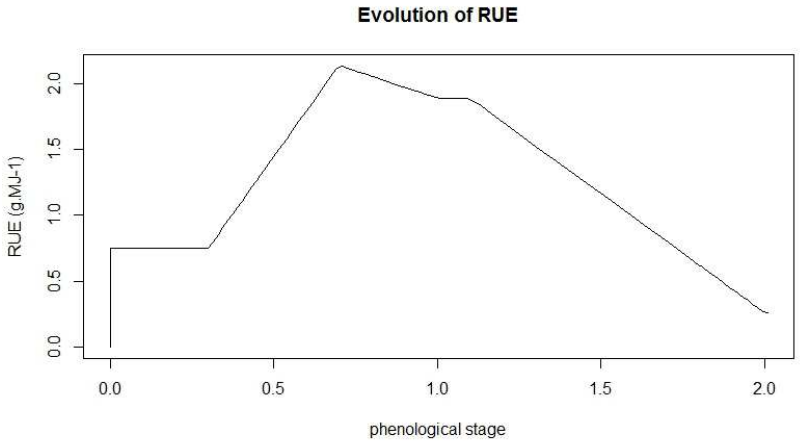
# WHEATPEST under XPEST



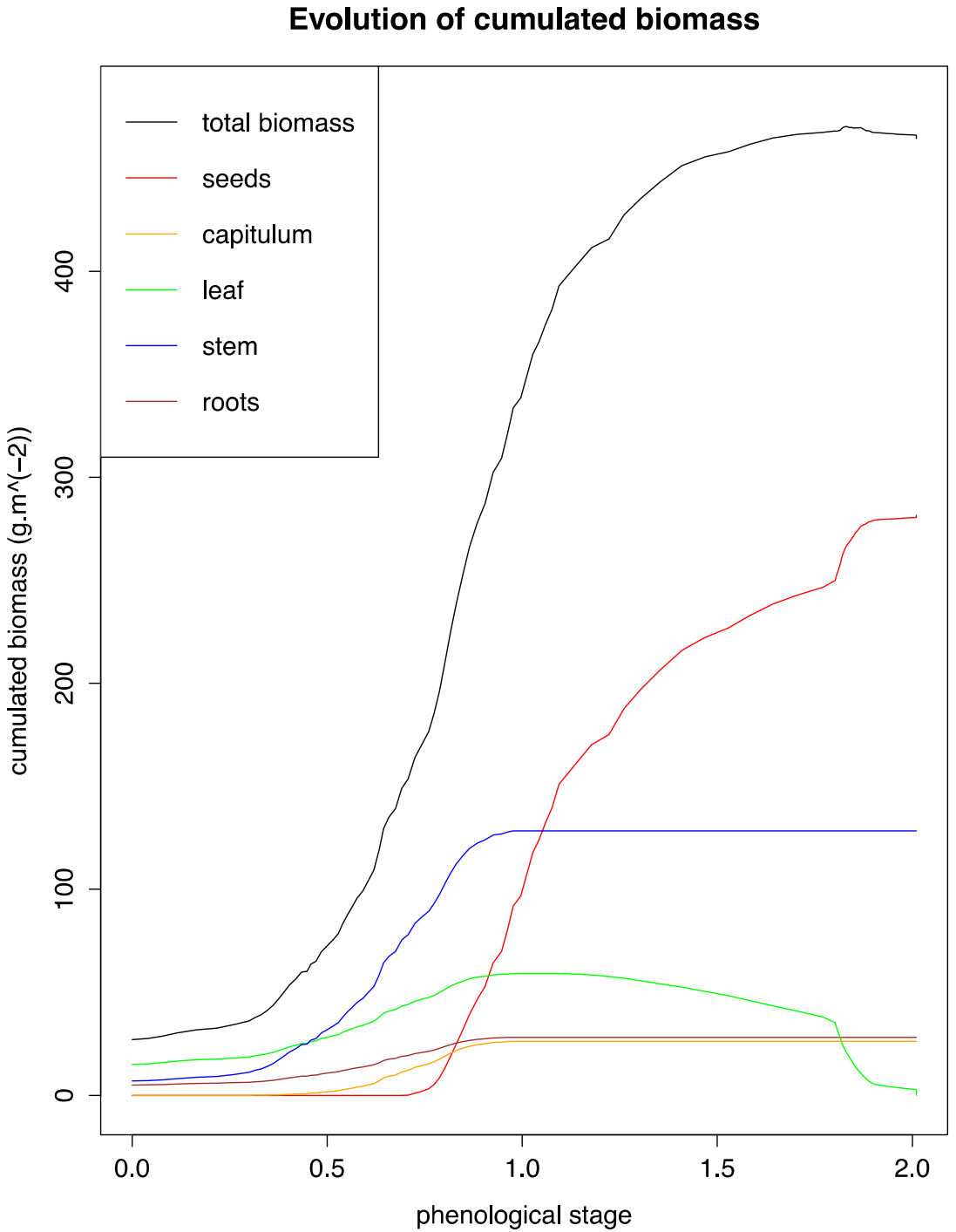
# Input variables




# Output variables



# Discussion

- XPEST permits to easily create models that represent the impact of one or multiple pests on yield built-up

- These models can represent interactions among damage mechanisms

- Need to enhance research on multiple pest modelling

- Need to strengthen interactions among crop modellers and pest specialits