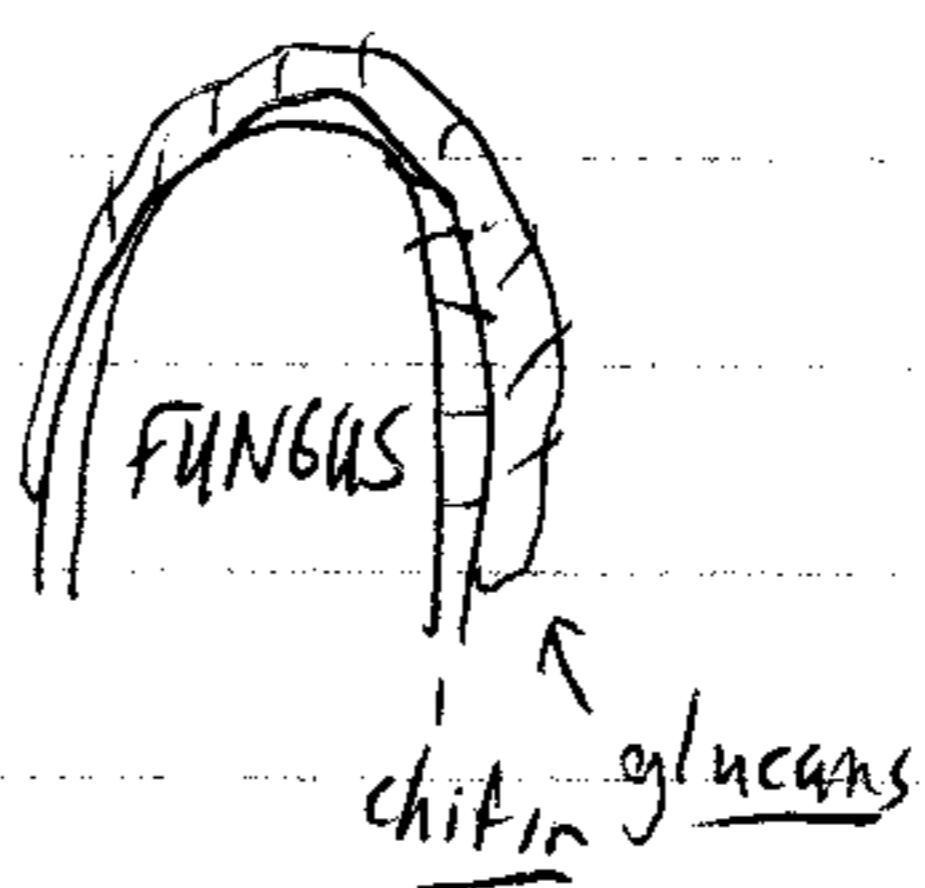


# C Lamb: Plant Defense Mechanisms to Microbial Pathogens

## Fungal Attacks



### Response

Functional Response

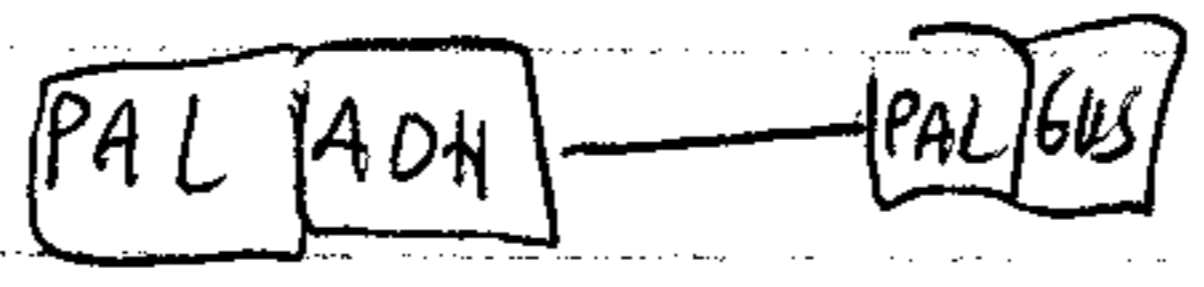
- ① phytoalexins
- ② cell wall toughening (e.g. lignification)
- ③ lytic enzymes (e.g. chitinase)

Mechanism

① rapid tx. activation

• Kinetics are important  
 • tested whether multiple tx activation is better than single  
 (e.g. chitinase + glucanase)

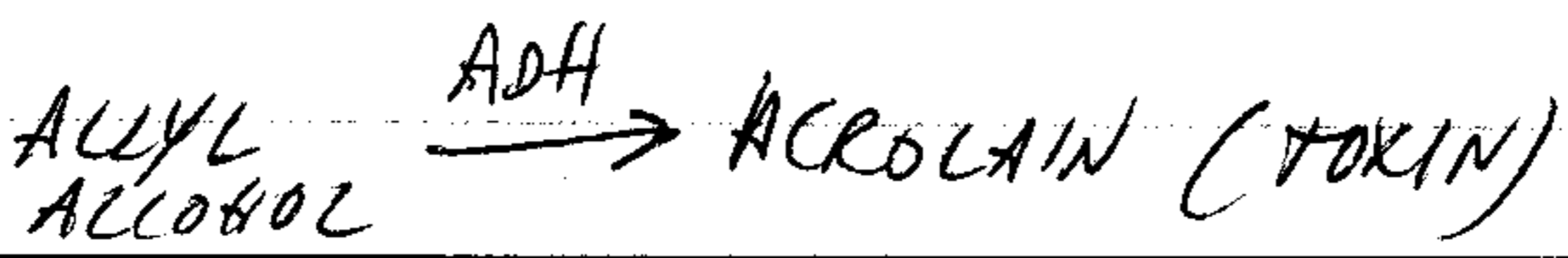
② selection



CONTROL FOR ADH MUTATIONS

↑  
INDUCIBLE PROMOTER

SELECT FOR ADH<sup>-</sup> STRAINS WITH ALLYL ALCOHOL



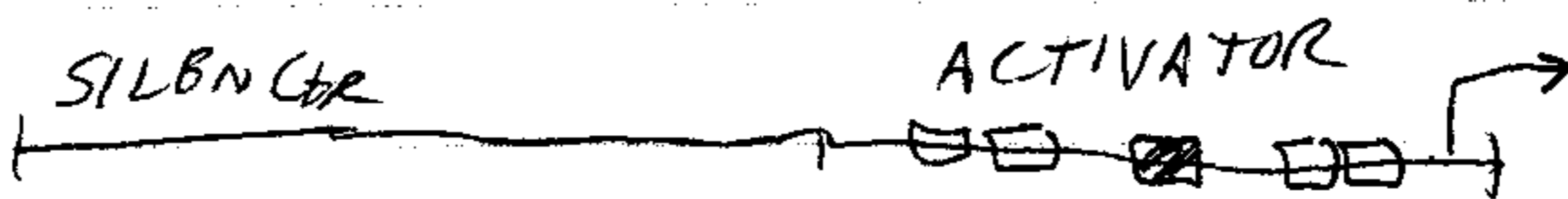
- ACQUIRED
- ③ SYSTEMIC RESISTANCE - SAR
- immunize w/ Avirulent
  - 2-8 days later virulent strain won't work even in other regions
  - v. non-specific (immunize w/ any species)

SELECTION

① "immunize"

② look for disease w/ later tx

④ Chalcone synthase promoter



■ = G box    □ = H box factor

SIMILAR THINGS IN FERTILIZATION IN ANIMALS ⑤

Non-tx induced response

WALL TOUGHENING

X-LINKING

