Antifungal seed treatment with a waste product from a tropical crop

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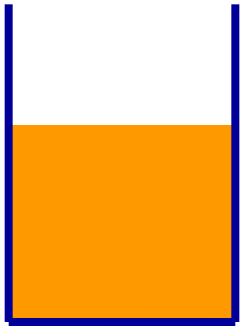
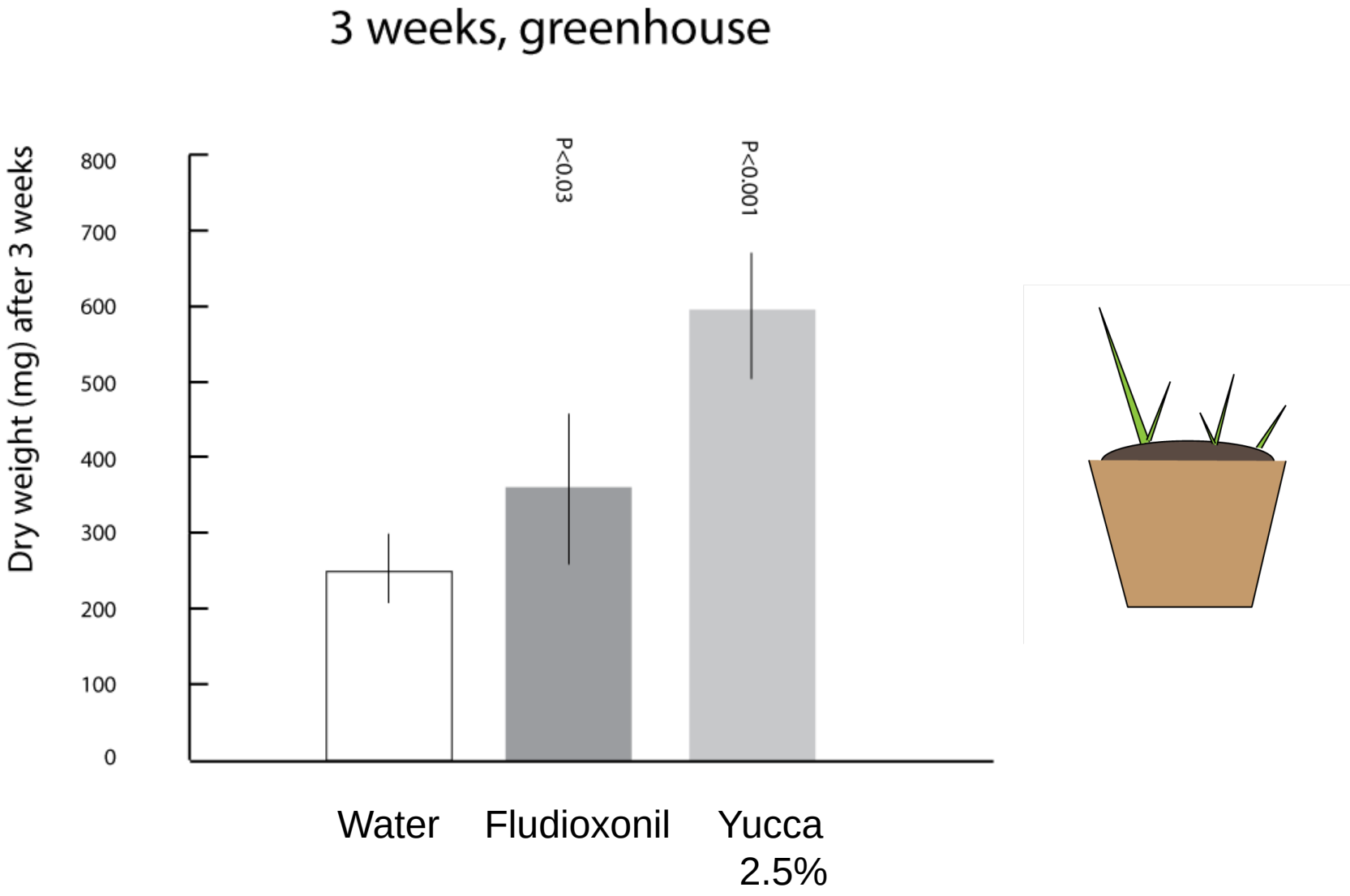
Yucca extract (YE)

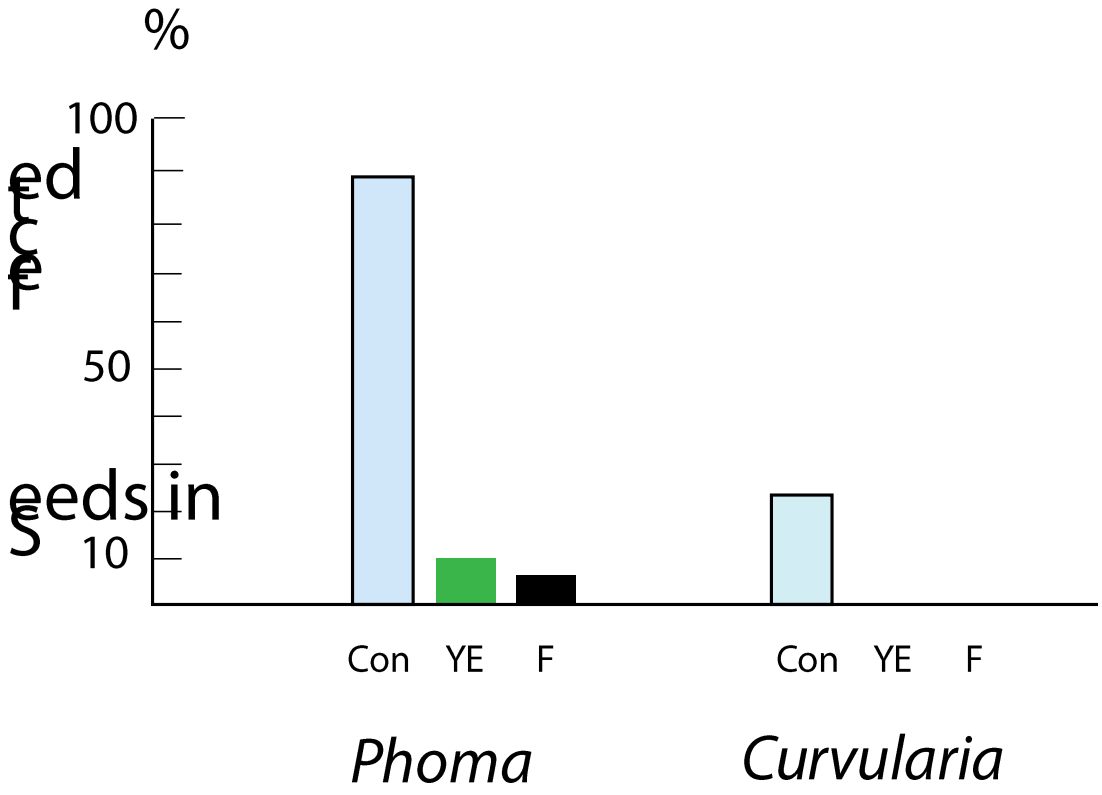


Water

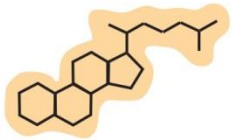
Filtered

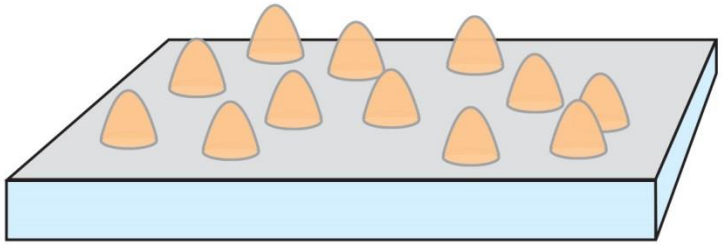
Autoclaved


3 weeks, greenhouse
Dry weight (mg) after 3 weeks
800
700
600
500
400
300
200
100
0
P<0.03
P<0.001
Water
Fludioxonil
Yucca
2.5%


%
100
50
10
Con
YE
F
Con
YE
F
Phoma
Curvularia

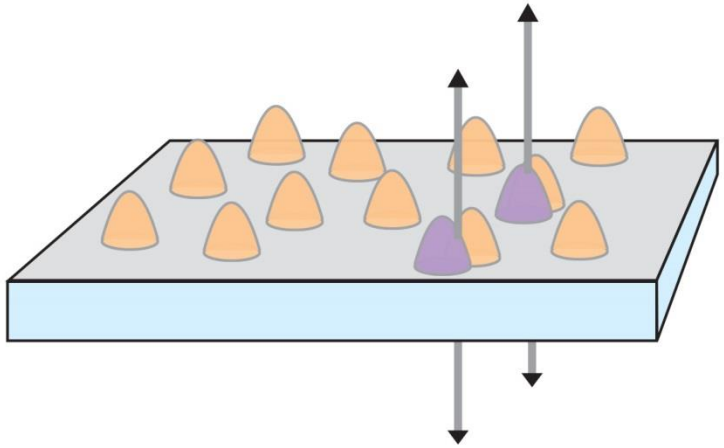
Sterol





Plasma membrane

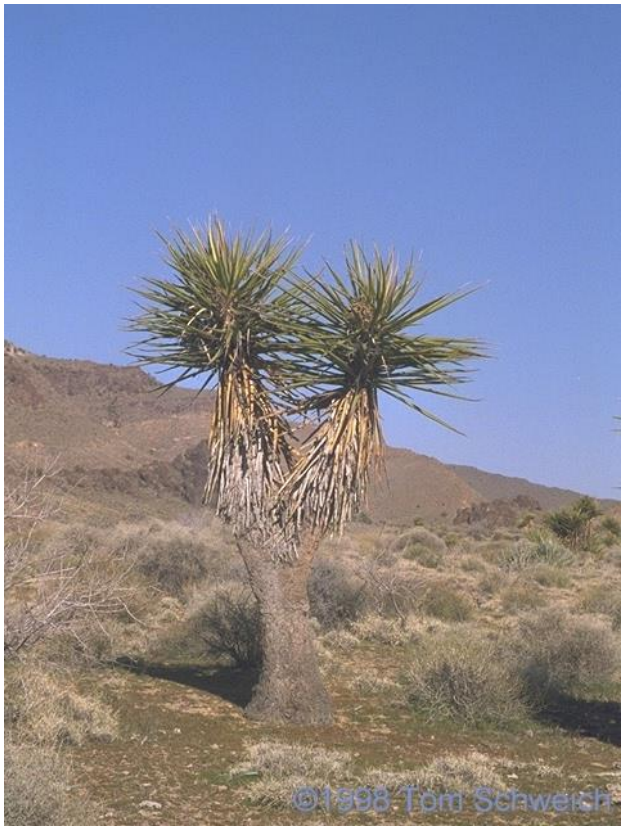
Saponin



Na+ K+ Cl-

H_2O

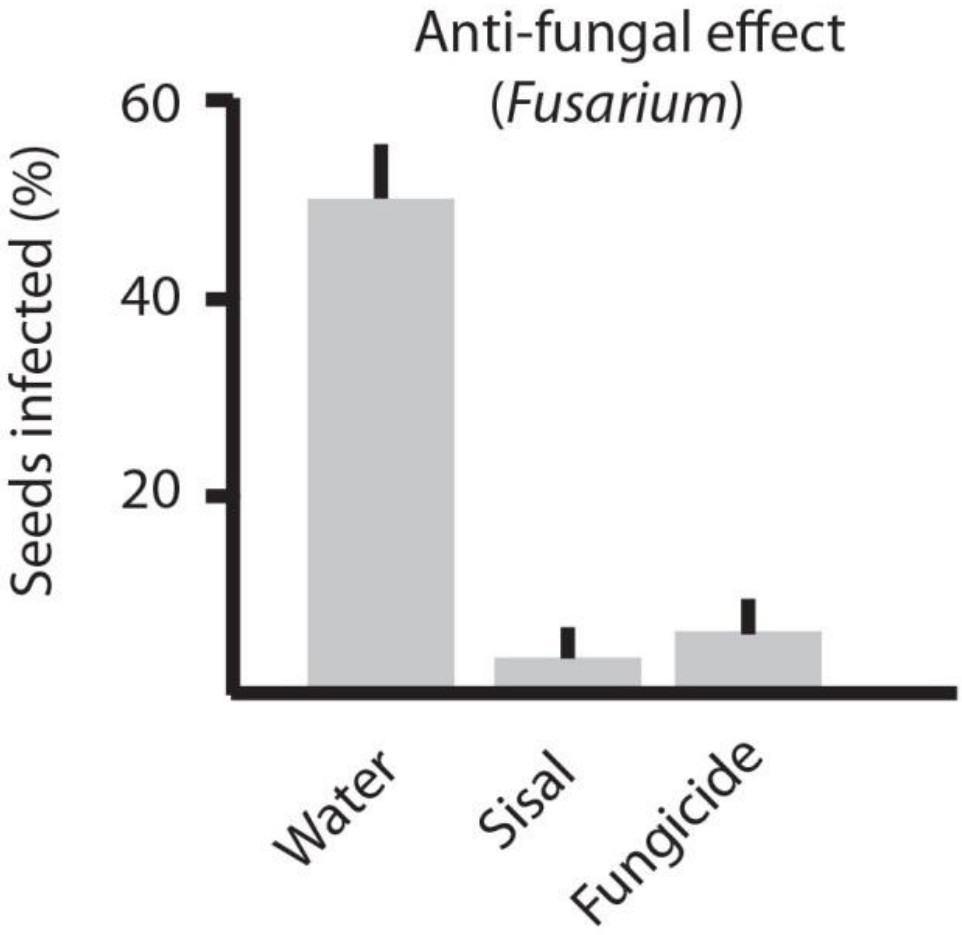
Mojave desert



Yucca schidigera

Agave sisalana

Stem


Anti-fungal effect
(*Fusarium*)
Seeds infected (%)
60
40
20
Water
Sisal
Fungicide

1 week

2 weeks
Sisal extract
Water
No treatment

Sisal stem powder: storability (2 years, RT)

Thanks to

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