White Rot Overview & Use of Germination Stimulants (with focus on DADS)

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White Rot (*Sclerotium cepivorum*)
March 2007, San Joaquin Valley
90+ fields, 14,000+ acres
DADS (diallyl disulfide)

• Apply when soil temperatures are 50-70 F
• In the San Joaquin Valley, apply fall or spring
• Application in summer may result in shortened period of activity
DADS (single application) and Methyl Bromide

Sample Date (Kern County)

Sclerotia/500 g Soil


none

DADS 1 gal/A

MeBr
DADS (single application)

Sample date (Douglas County, NV)

Sclerotia/500 g soil
DADS (single application)

Sclerotia/500 g soil

Sample date (Kern County)

Sep-99 Nov-99 Jan-00 Mar-00 May-00 Jul-00 Sep-00 Nov-00
DADS (single application)

Sample date (Fresno Co)

Sclerotia/500 g soil

precount May 5 06

preplant Nov 11 06
DADS (single application)

Sample date (Modoc Co)

Sclerotia/500 g soil

None
DADS 0.5 gal/A
DADS 1 gal/A

Precount Apr 16 06
Preplant Mar 19 07
Yield kg/m

Kern Co.

None  DADS  MeBr

Douglas Co., NV

None  DADS- single app.

Kern Co.

None  DADS

Douglas Co., NV

None  DADS- split app.

Amount of data is insufficient to determine statistical significance.
Conclusions

• A single application of DADS can result in >90% sclerotia mortality, significantly reducing risk of spread

• Profitable yields may not be possible following DADS treatment