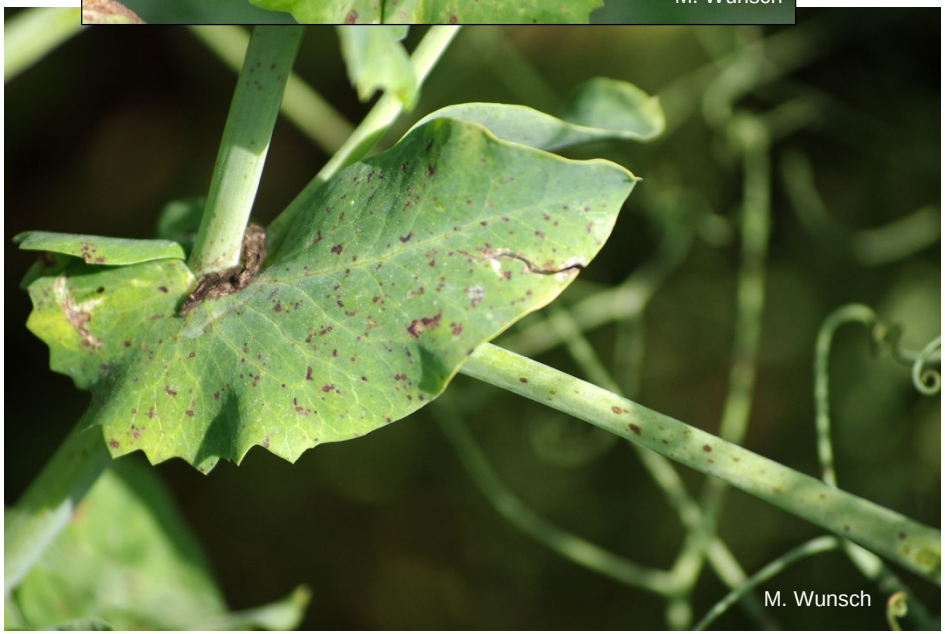
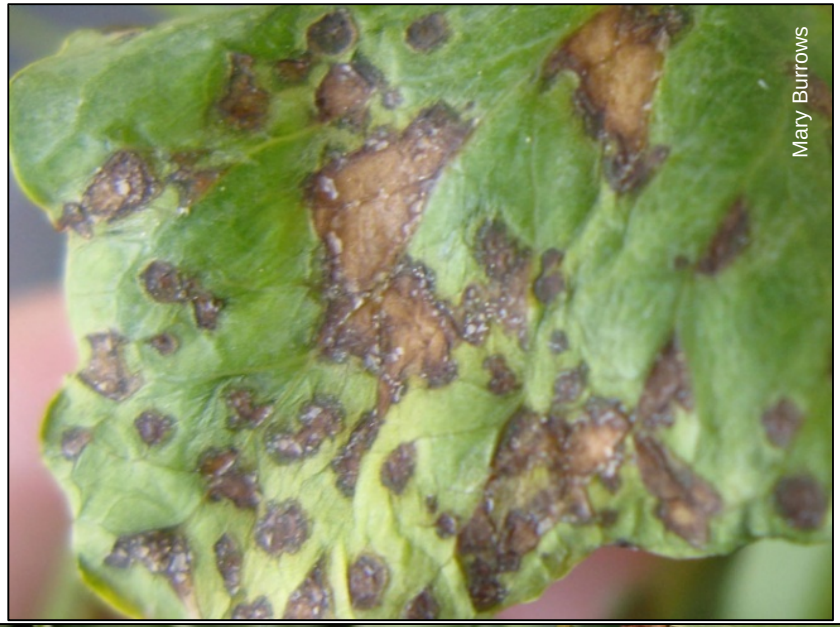
Bacterial blight

MYCOSPHAERELLA (ASCOCHYTA) BLIGHT



BACTERIAL BLIGHT



Bacterial blight

MYCOSPHAERELLA (ASCOCHYTA) BLIGHT

BACTERIAL BLIGHT

Bacterial blight

Bacterial blight is favored by **rain** and **mechanical damage**

- Hail
- Rain with strong winds

Bacterial blight

In dry weather, the bacterial blight pathogen **colonizes plant surfaces without causing disease**

- Facilitates rapid disease development when wet weather occurs

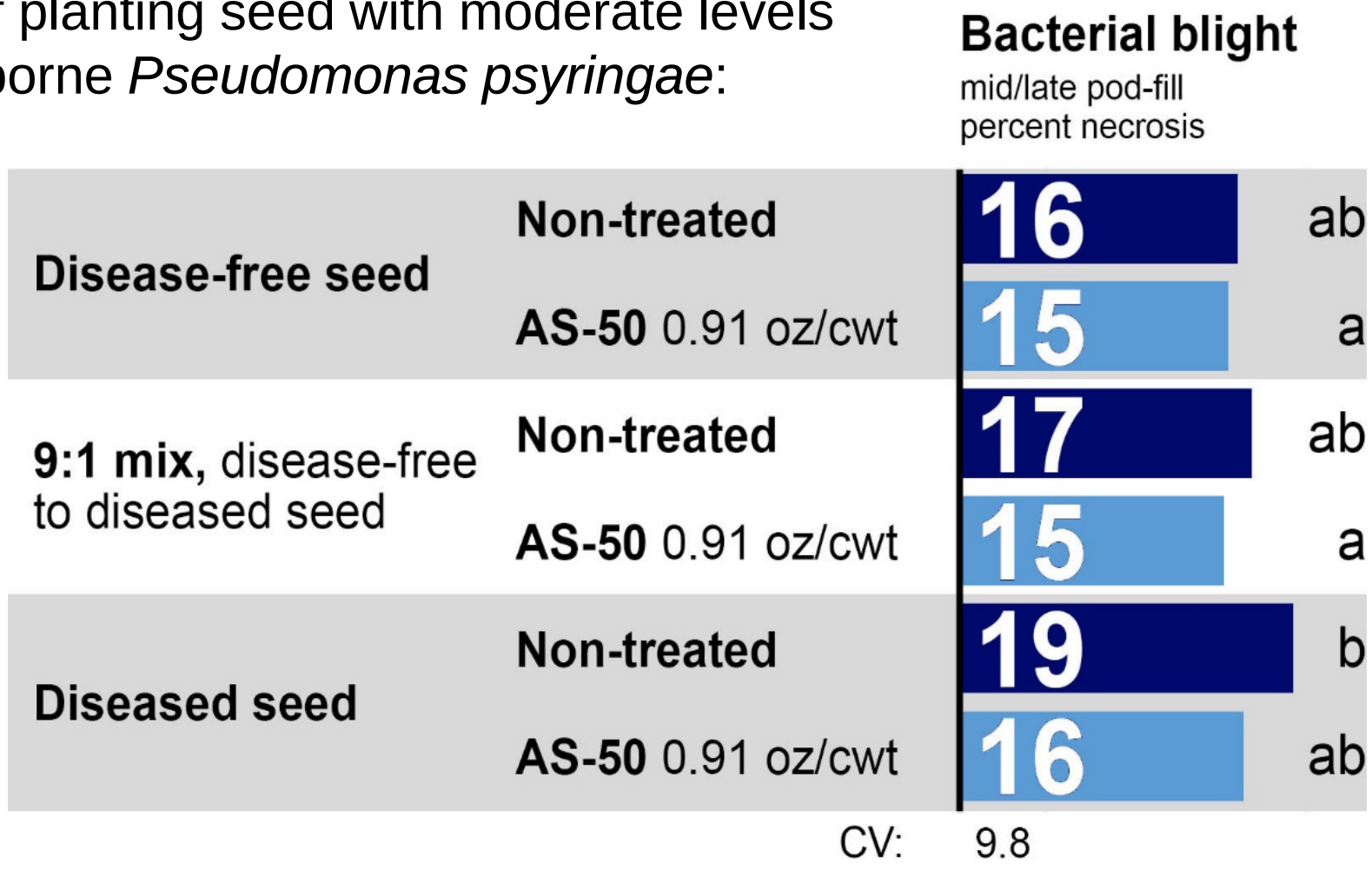
Bacterial blight

A **seed-borne** and **seed-transmitted** disease.

- Diseased pods produce diseased seeds
- Diseased seeds carry the pathogen *internally* and *externally*

Bacterial blight

Impact of planting seed with moderate levels of seed-borne *Pseudomonas psyringae*:

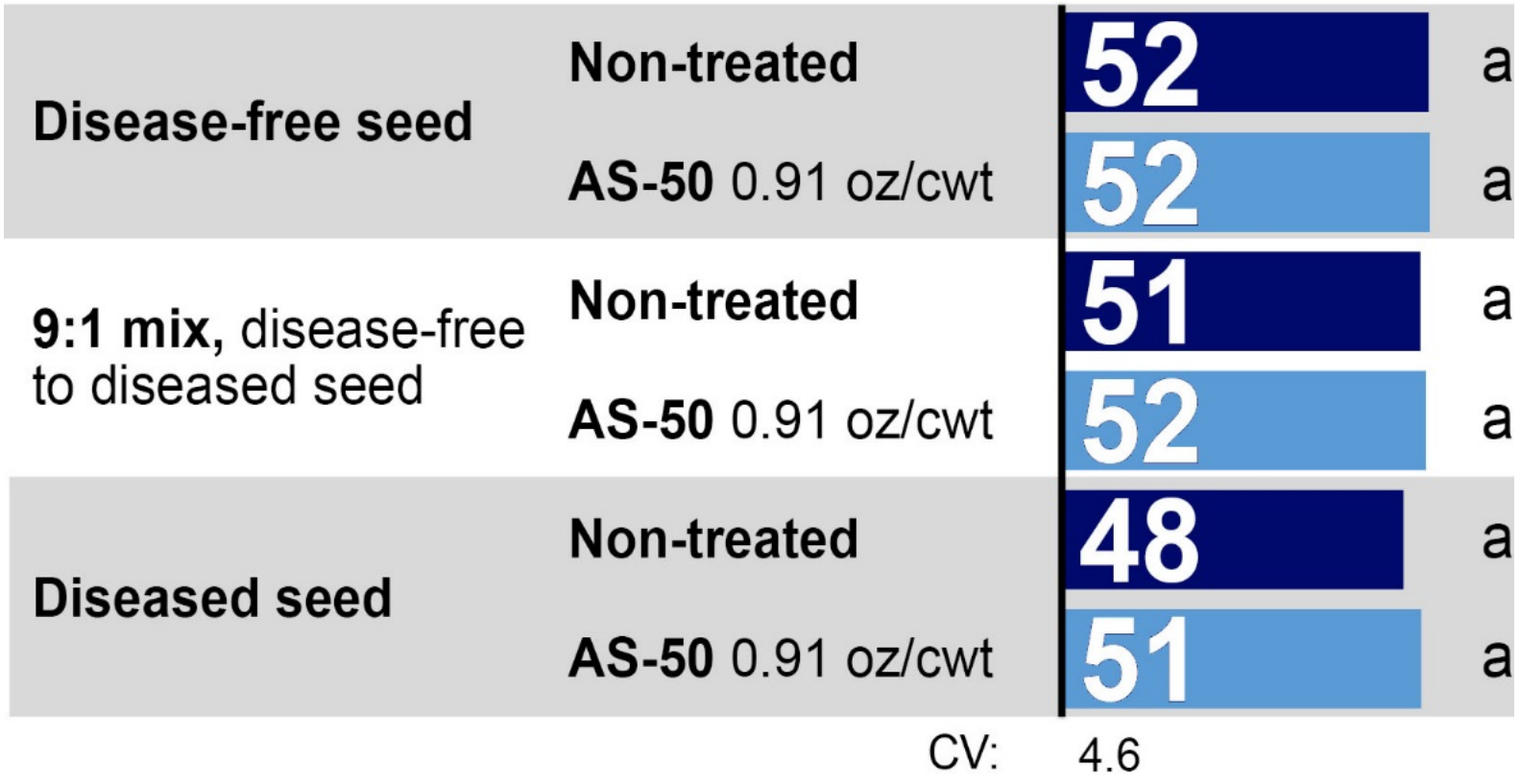


AS-50 is not currently registered for use on field peas.

Combined analysis across four field trials (Carrington and Oakes, ND)

Bacterial blight

Impact of planting seed with moderate levels of seed-borne *Pseudomonas psyringae*:



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Bacterial blight

- Use clean seed.
  Do not save seed from fields with severe bacterial blight.
- Avoid tight crop rotations.
  Allow residues from previous pea crop to decay.
- Avoid spreading the disease with equipment.
  Allow plants to dry before entering fields with equipment.

Identification of powdery mildew

Initial symptom expression: **Small patches of white powdery growth on upper surfaces of oldest leaves**

Identification of powdery mildew

Early to mid-symptom expression:
White powdery layer above green tissue

Late symptom expression:
Patchy gray discoloration, underlying plant tissue

Identification of powdery mildew

Late symptom expression: **Plants have bluish color**

Powdery Mildew - IMPORTANCE

Impacts of powdery mildew:

- **Reduced yield**
- **Significantly reduced seed size**
- **Premature crop maturity**
- **Severe “mildew dust” at harvest,** resulting in breathing and allergy problems for machinery operators

Conditions favoring disease

Warm, dry weather accompanied by **cool nights with dew formation**

Dry weather favors this disease.

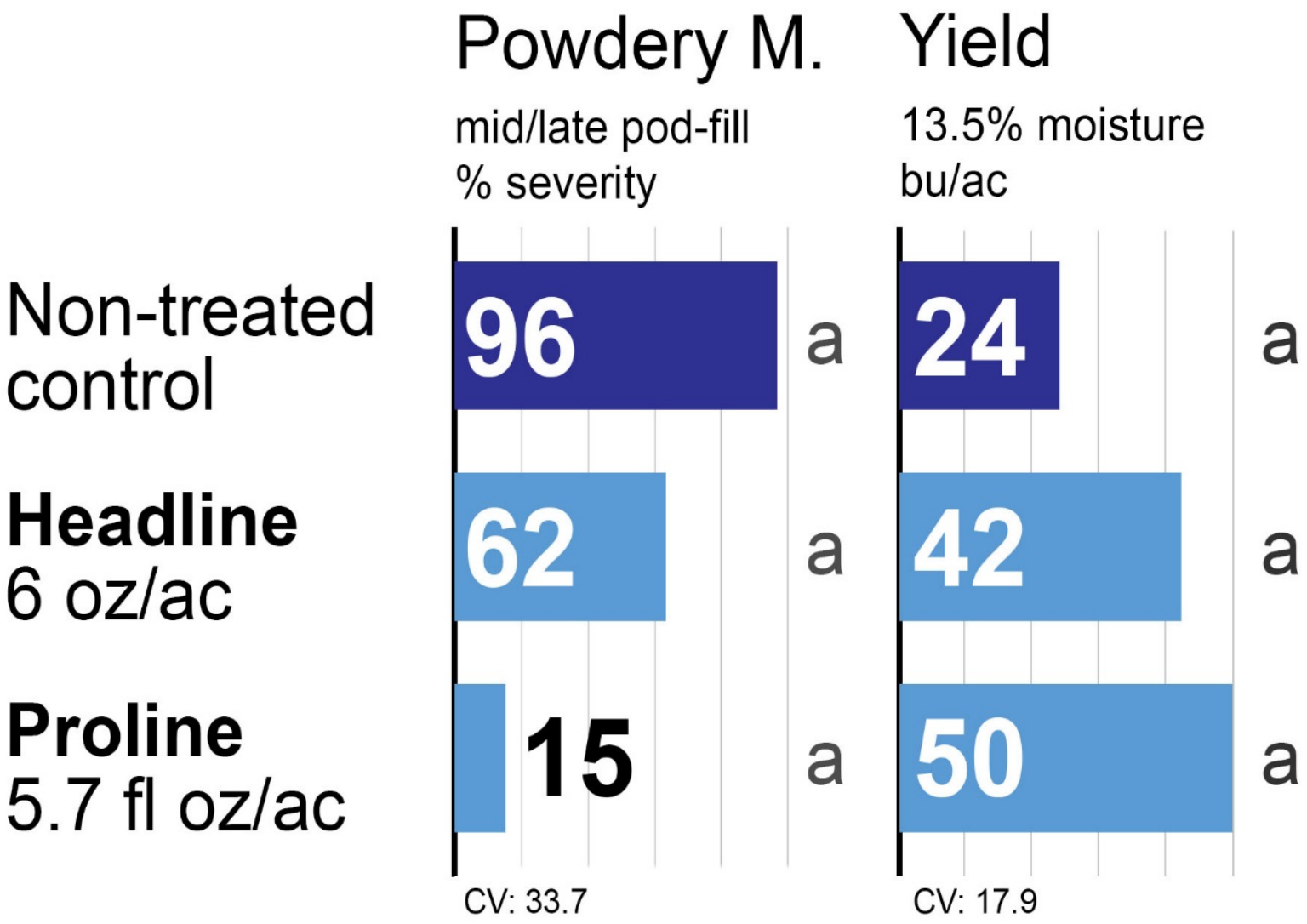
- Spores germinate in absence of leaf wetness
- Rainfall reduces spore viability

Management of powdery mildew

- **Resistant varieties confer immunity.**
- For susceptible varieties, **avoid late planting dates**
- **Fungicides should be applied preventatively** on the basis of perceived risk.

Fungicide efficacy

Powdery mildew of field peas



Combined analysis across two field trials (Carrington, ND)