



# **Collaborative Study Black Shank (BKS) 2016 Report**

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**Presenter: Anne Jack, UK, USA**

**Berlin, 10 October 2016**

- ❖ **To test black-shank resistant varieties in a global collaborative study**
- ❖ **Test relative resistance in different locations**
- ❖ **Previous black shank collaborative study terminated many years ago: started again because:**
  - **Black shank race composition changed in many places**
  - **Newer, more resistant varieties available**

## ❖ Race 0 resistant checks

### ➤ Burley

- KY 14 x L8 – race 0 R (10), race 1 S (0)

### ➤ Flue-cured

- NC 1071 – race 0 R (10), race 1 S (0)

## ❖ Susceptible checks

### ➤ Burley

- KY 14 – very susceptible (0)
- TN 90 – low resistance (4)

### ➤ Flue-cured

- KM 10, XHJ 1025 – very susceptible
- ?? low resistance



# Suggestions for entries

to be finalized by coordinator

## ❖ Flue cured

- Sp 225 – best race 1 R
- CC143 – high race 1 R
- NC 196 – race 0 R, race 1 medium R
- PVH 1452 – race 0 R, race 1 medium R
- ZY 100 – race 0 R (0), race 1 medium R (6)
- Lines from Bergerac Seed & Breeding
- Chinese lines?



# Suggestions for entries

to be finalized by coordinator

## ❖ Burley

- KT 215 – best race 1 R
- KT 209 – good race 1 R
- KTS 2002 (parental line) – good race 1 R
- Lines from Bergerac Seed & Breeding
- Chinese lines?

## ❖ Dark

- KTD 17 – race 0 R (10), race 1 medium (0)



# Suggestions for experimental design

to be finalized by coordinator

## ❖ Design

- RCB
- Smaller plots, more reps
- Half rows (±20 plants)
- Minimum 4 reps, ideally 8



# Suggestions for assessment protocols

to be finalized by coordinator

## ❖ Counts

### ➤ 3 part count

- # dead,
- # showing symptoms
- # healthy

## ❖ Stand count

### ➤ 1 WAP for floats plants

### ➤ 2 WAP for traditional seedbed plants

## ❖ Timing

### ➤ Counts every 2 weeks, starting 2 weeks after stand count

### ➤ Until end of harvest



# Suggestions for assessment protocols

to be finalized by coordinator

## ❖ Data

- AUDPC
- Disease index

## ❖ Notes

- pH
- Nematodes
- Soil insects





# Participants

- ❖ **USA – University of Kentucky (Natalia Matinez) + GH trial race 0**
- ❖ **USA – University of Tennessee (Bob Miller)**
- ❖ **USA – Virginia Tech (Chuck Johnson) ?**
- ❖ **Zimbabwe – TRB (Susan Dimbi)**
- ❖ **China – CNTC (Fenglong Wang)**



- ❖ **Protocols & datasheets to be finalized, seed sent to participants**
  - **Northern hemisphere: December 2016**
  - **Southern hemisphere: May 2017**



# Group meeting – Berlin 2016

- ❖ **Meeting Sunday 9 October**
  - **13 attendees**
  - **4/5 volunteers to run trials**



# THANK YOU