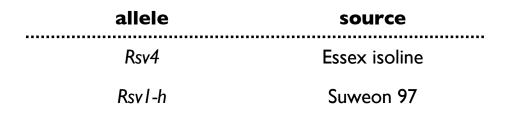
## 2010 Soybean Mosaic Virus (SMV) Coordination Report Univ. Nebraska/George Graef



### justification

- \_95% of Nebraska fields infected with BPMV
- \_Double infection with SMV results in synergistic virus symptoms

#### outcomes

- \_Variety development
- \_SMV resistant lines entered into the 2010 Northern prelims

### 2010 Soybean Mosaic Virus (SMV) Coordination Report North Dakota SU/Ted Helms

allele	recurrent parent	traits
Rsv4	ProSoy	0.8 RM for the specialty-tofu market

Sheyenne

0.8 RM, conventional for the general-use market

#### approach

\_Backcrossing Rsv4 gene

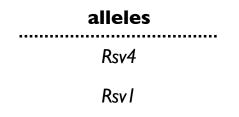
\_MAS using Satt542 and Satt558 to identify F2's for backcrossing

\_Will screen BC3F2 with SMV with Dr. Berlin Nelson

#### outcomes

\_SMV resistant public germplasm release in early maturity germplasm

## 2010 Soybean Mosaic Virus (SMV) Coordination Report Virginia Tech/K.M. Rainey



#### outcomes

\_Variety development: RM 4.5-5.5, conventional, food-grade

\_SMV resistant lines (*Rsv4*) will be entered into the 2010 Southern prelims

#### additional work

\_Conduct SMV screening nursery annually for Southern prelim test with Dr. Sue Tolin

\_Demonstrated lines severely susceptible in 2008 and 2009

# 2010 Soybean Mosaic Virus (SMV) Coordination Report Virginia Tech/et al. Research

\_K.M. Rainey + Sue Tolin

\_Preparing for an allelism test for a potential new gene or allele for resistance to SMV

\_Results from extensive observational study of seed coat mottling in food-grade germplasm infected with both SMV and BPMV, separately

\_M.A. Saghai Maroof

- \_Fine-mapping Rsv4
- \_Rsv1, Rsv3, and Rsv4 pyramidded lines

\_Rsv1-n allele in PI 507389 conditions a lethal necrosis11:30 Tuesday: "Soybean mosaic virus resistance genes and their interactions"

\_Screen three gene pyramided lines with BPMV

### 2010 Soybean Mosaic Virus (SMV) Coordination Report Auburn/Ed Sikora and John Murphy Research

We have conducted a survey of viruses in soybean in Alabama for thelast three years. In 2007 and 2008, no SMV was detected (of course thatdoes not mean it was not present in the state- we just did not findinfected samples). In 2009, ~48% of the fields from which samples werecollected had SMV. Fields with the highest incidence of SMV occurred incentral and southwestern counties.