# The Potato Association of America Research Discussion Mark J. Pavek The Executive Committee and Members of the Potato Association of America L(C)O(M(E) Fabulous LAS VEGAS **POTATO EXPO** 2020





2020 Potato Association of America 104TH ANNUAL MEETING

July 19 -23, 2020

Holiday Inn Downtown Missoula, Montana

Early Registration ends June 5, 2020

# The Potato Association of **America**

- Official Research Arm of the US Potato Industry Conducting Potato Research and Educating Tomorrows **Work Force**
- **Helping Keep The US Industry Globally Competitive Since** 1913



#### **PRESENTATIONS**

Are hybrid potatoes in your future?
Paul Bethke, Research Plant Physiologist, USDA-ARS

**Shelley Jansky, Research Geneticist, USDA-ARS** 

Identifying Herbicide Injury in Potato
Andy Robinson, Extension Potato Agronomist
and Associate Professor, North Dakota State
University / University of Minnesota





















The official home of the Idaho potato































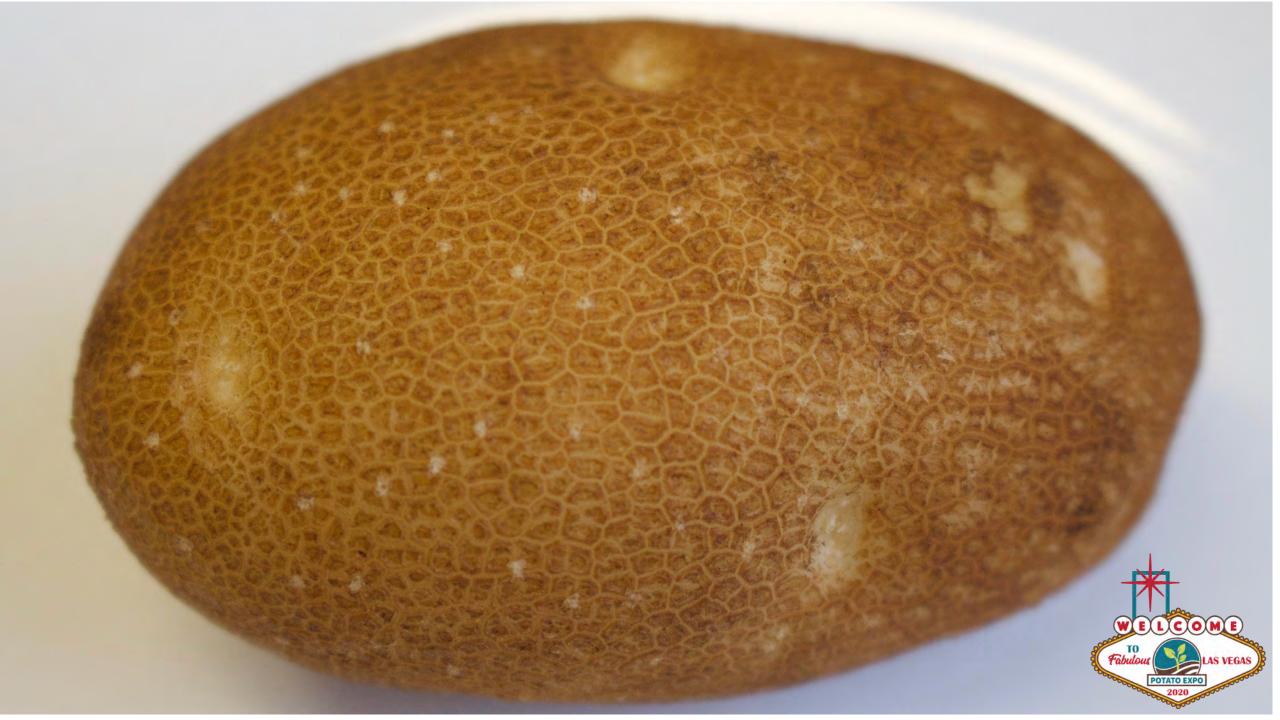


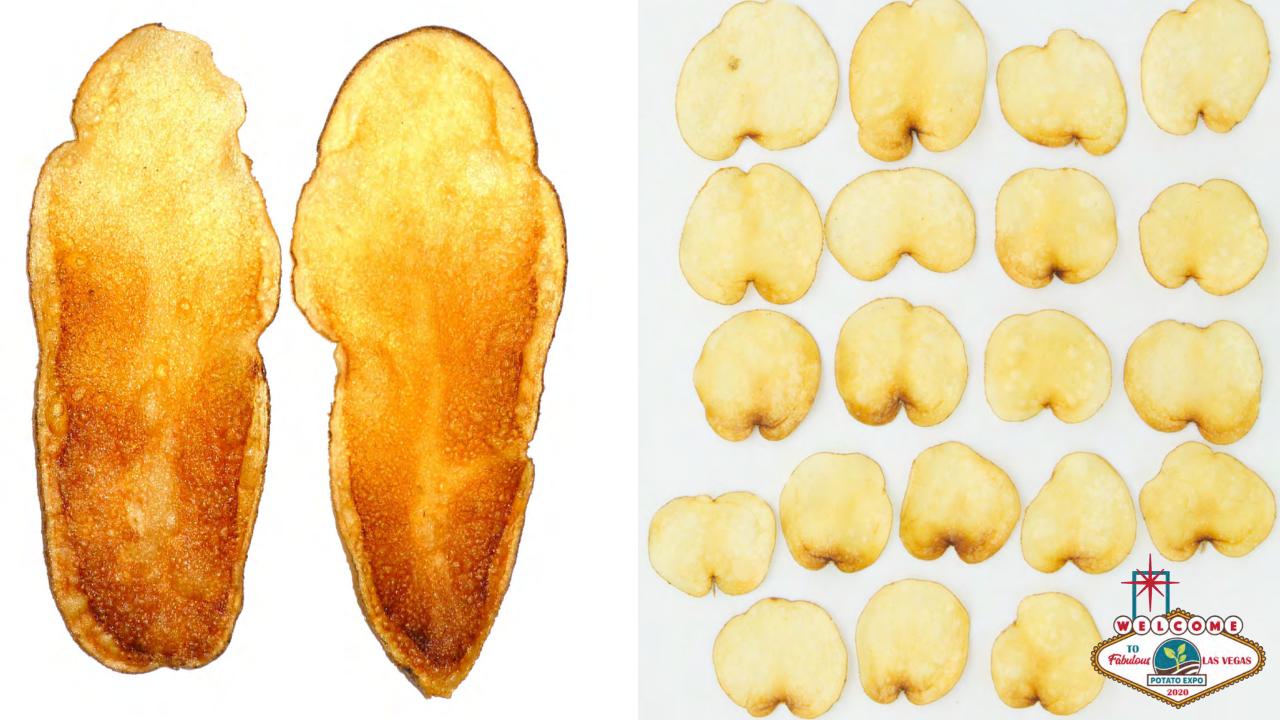






































#### Are hybrid potatoes in your future?



#### Where we are today

Breeding system Unpredictable offspring

Long odds for improvement

Seed system Slow increase

Disease accumulation



#### What we can change

Simplify the genetic system

Discard genetic baggage

Stack the genetic deck in our favor

Create uniform hybrids from true seed



#### **Potential outcomes**

**Breeding system** Targeted improvements

Non-GMO

Seed system Faster increase

Reduction in disease



#### Long-term goals

Adapt to climate change

Reduce financial risk

Promote environmental sustainability



USDA NIFA Award 2019-51181-30021

Poster presented by Shelley Jansky and Paul Bethke USDA-ARS, Madison, WI





USDA NIFA SCRI Award 2019-51181-30021













## Soil carryover





# **Imazapyr**







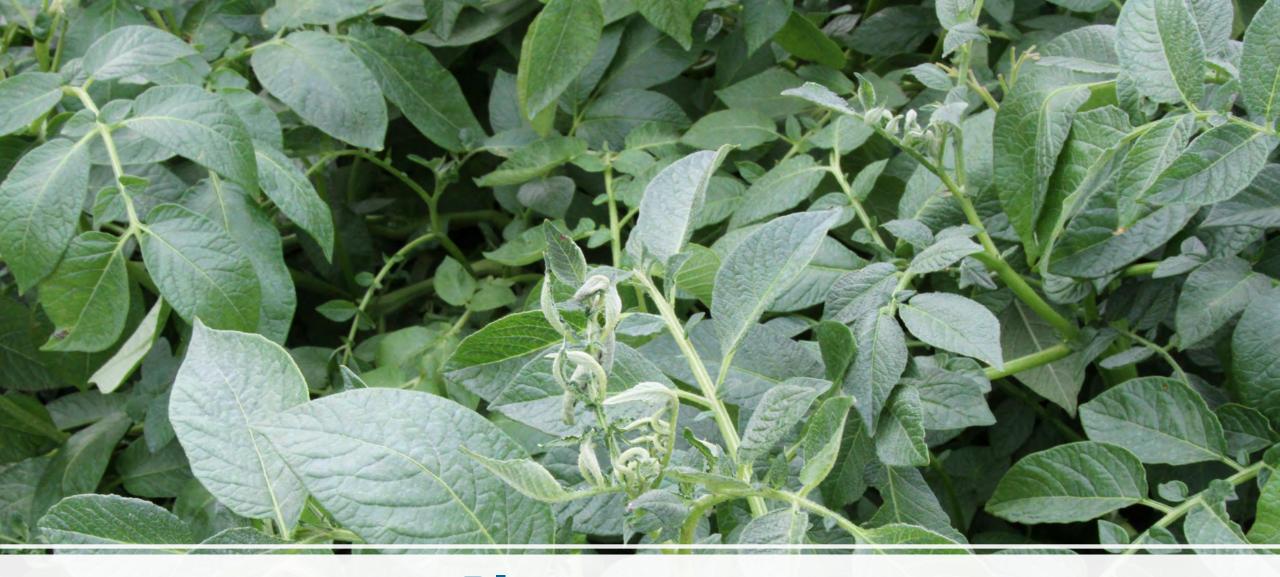




# **Imazapyr**

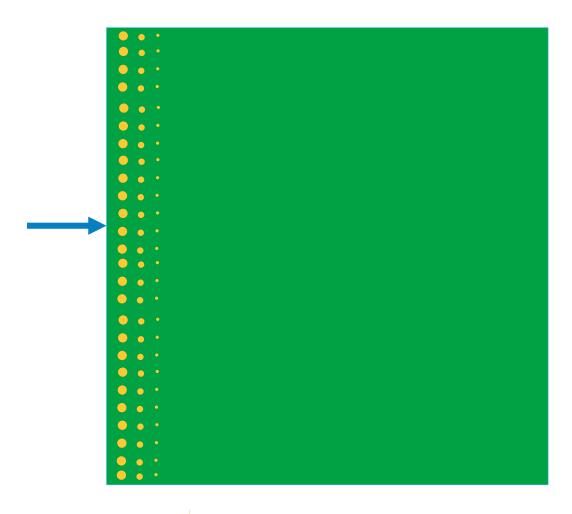


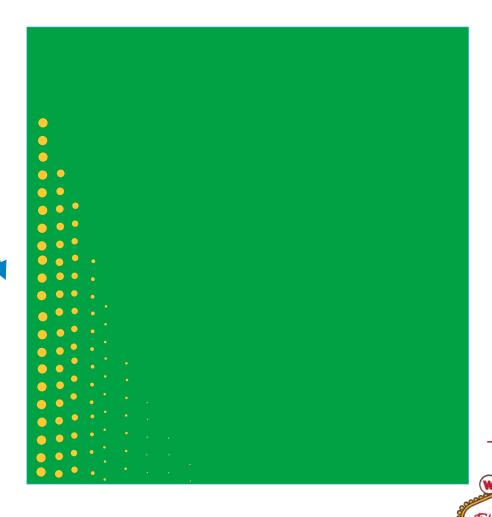




### **Plant exposure**

# **Drift patterns**







EXTENSION



#### **Tank contamination**







# **Glyphosate**







## **Picloram**







## Dicamba







#### **Imazamox**









### Rimsulfuron







## Metribuzin



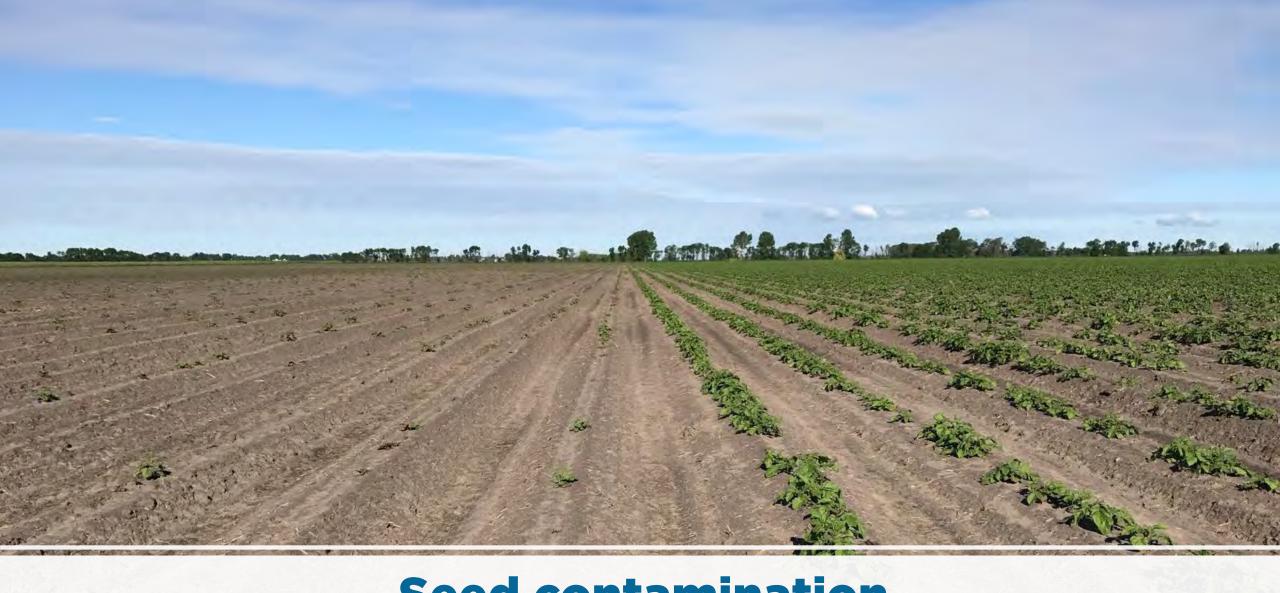




### Linuron







#### **Seed contamination**



#### Dicamba seed contamination







### Dicamba seed contamination







# Glyphosate seed contamination Fabruary LAS VEGA

NDSU

EXTENSION

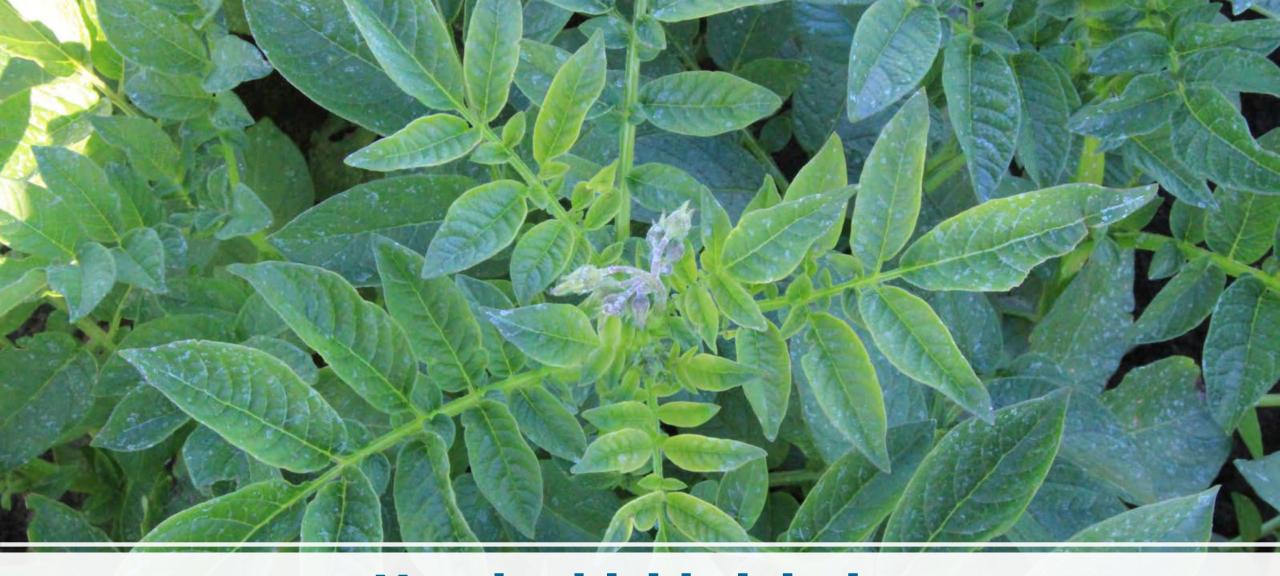




## Glyphosate seed contamination







Non-herbicide injuries



## **Fertility stress**















### **Tuber Cracking**







#### **Heat crinkle**





#### Testing

- Clean gloves/bag
- Representative sample
- Wash tubers
- Take pictures
- Ship overnight





## Fueled by Happy Potatoes



EXTENSION











