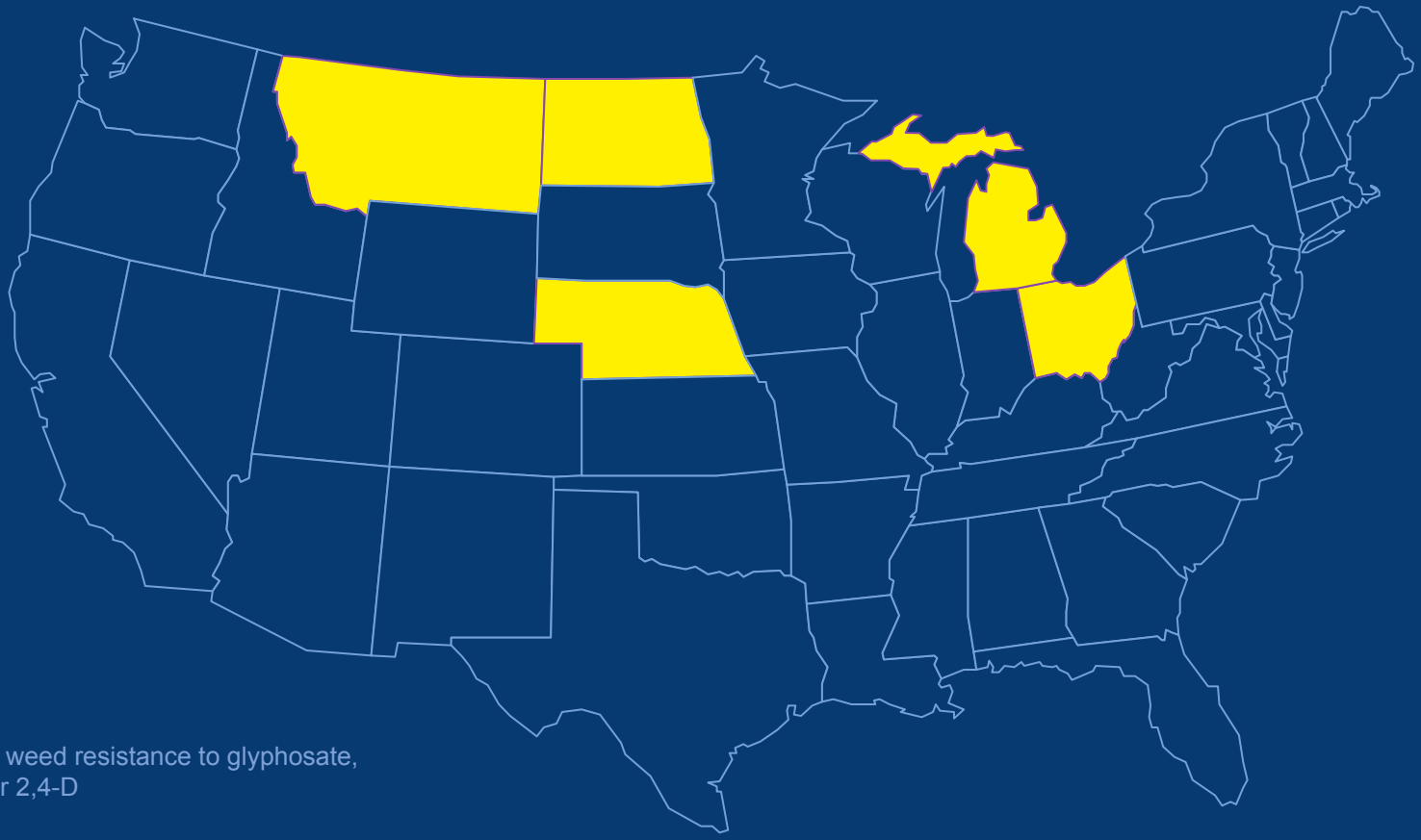
TREAT EVERY PLANT THE SAME.

Accuracy and precision are critical elements to get right to avoid wasting costly products. It is also imperative to achieve the right rate, at the right droplet size, to optimize each plant's performance and yield potential.

1995 | Resistant Weeds Harming U.S. Crops

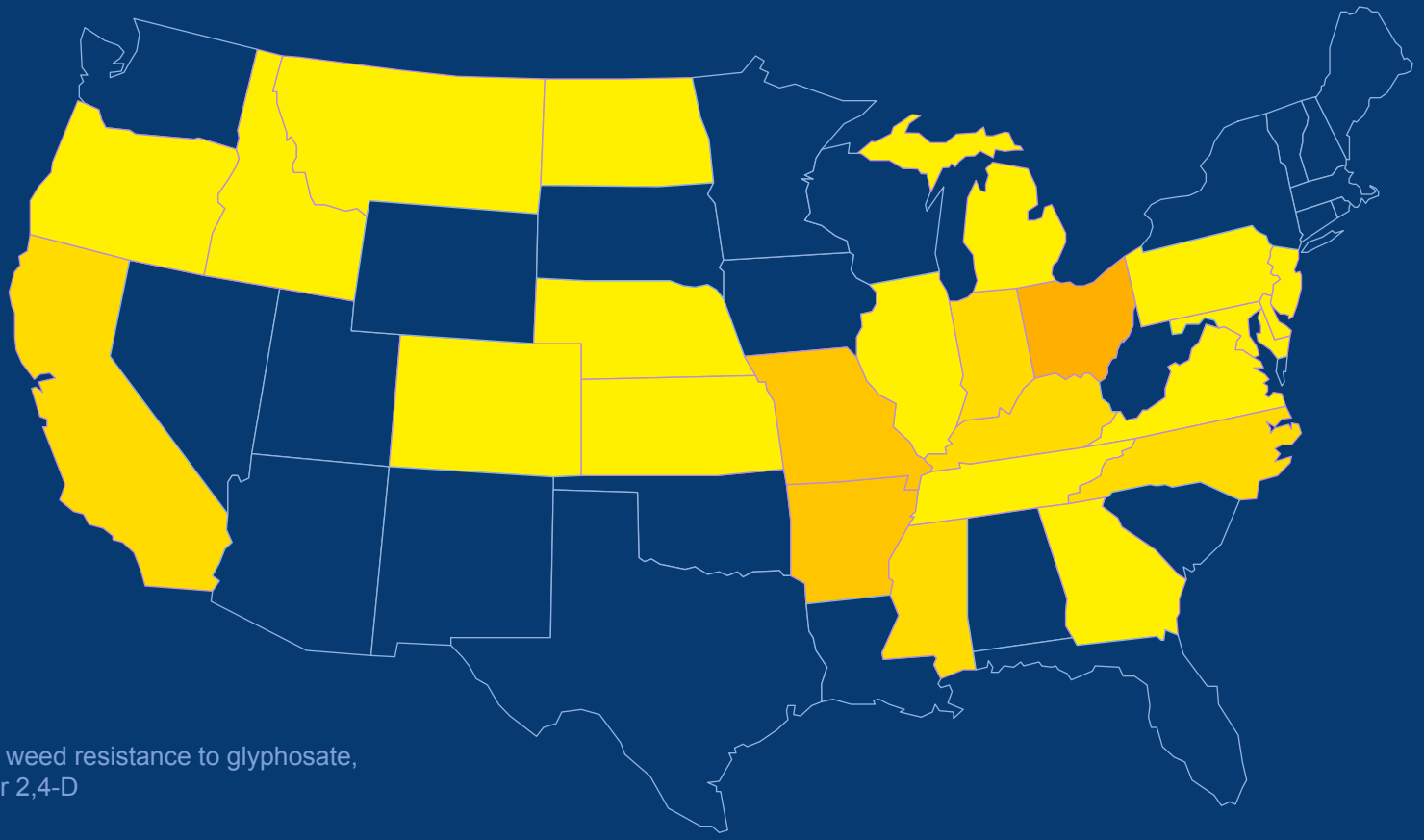


cases of weed resistance to glyphosate, dicamba or 2,4-D

1 2 3 4 5 6 7 8+

Source: www.weedscience.org

2005 | Resistant Weeds Spreading Fast

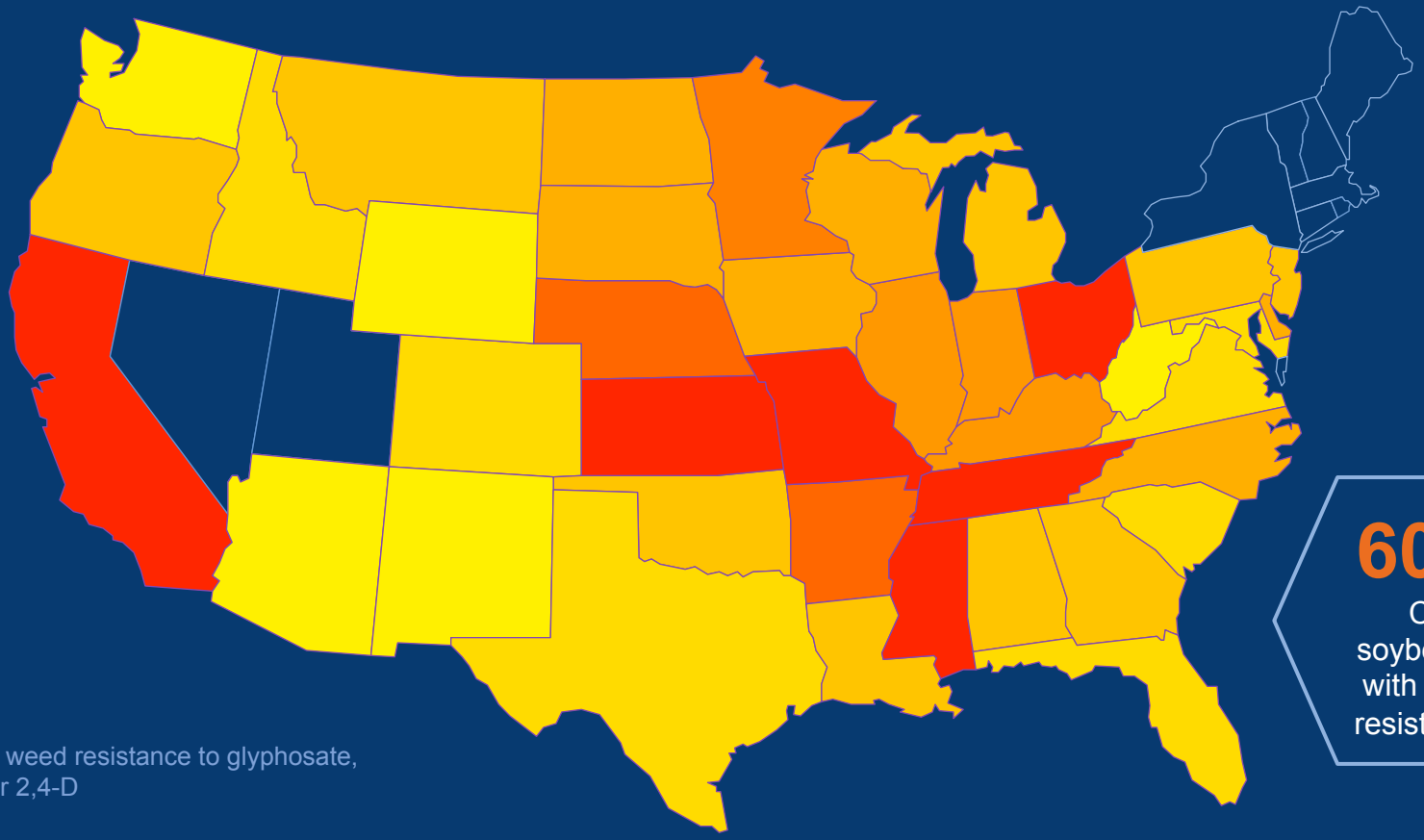


cases of weed resistance to glyphosate, dicamba or 2,4-D

1	2	3	4	5	6	7	8+

Source: www.weedscience.org

2015 | Weeds Are Winning the Battle



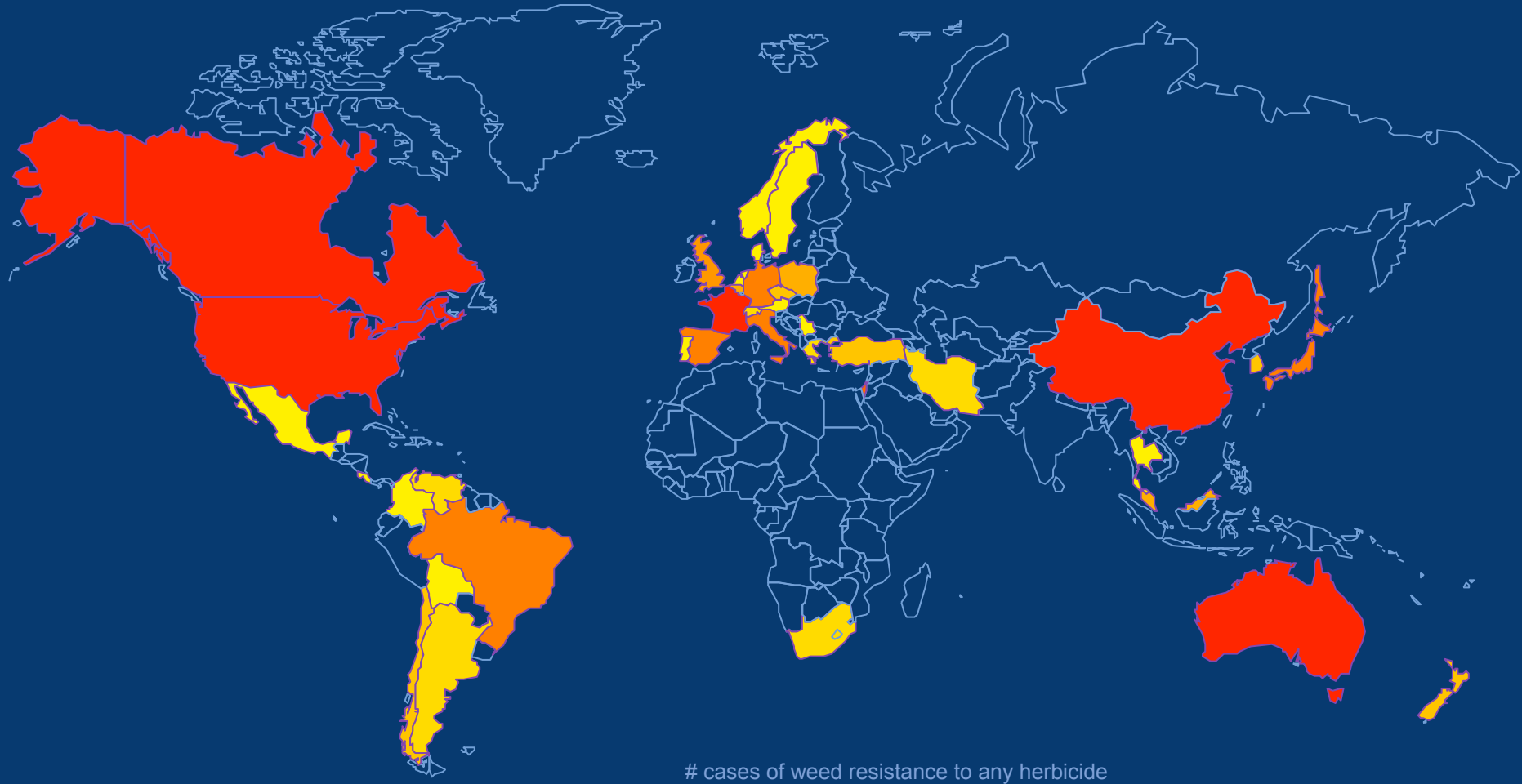
60M+
Corn & soybean acres with herbicide resistant weeds

cases of weed resistance to glyphosate, dicamba or 2,4-D

1	2	3	4	5	6	7	8+

Source: www.weedscience.org,
Stratus 2012 farmer survey, USDA NASS

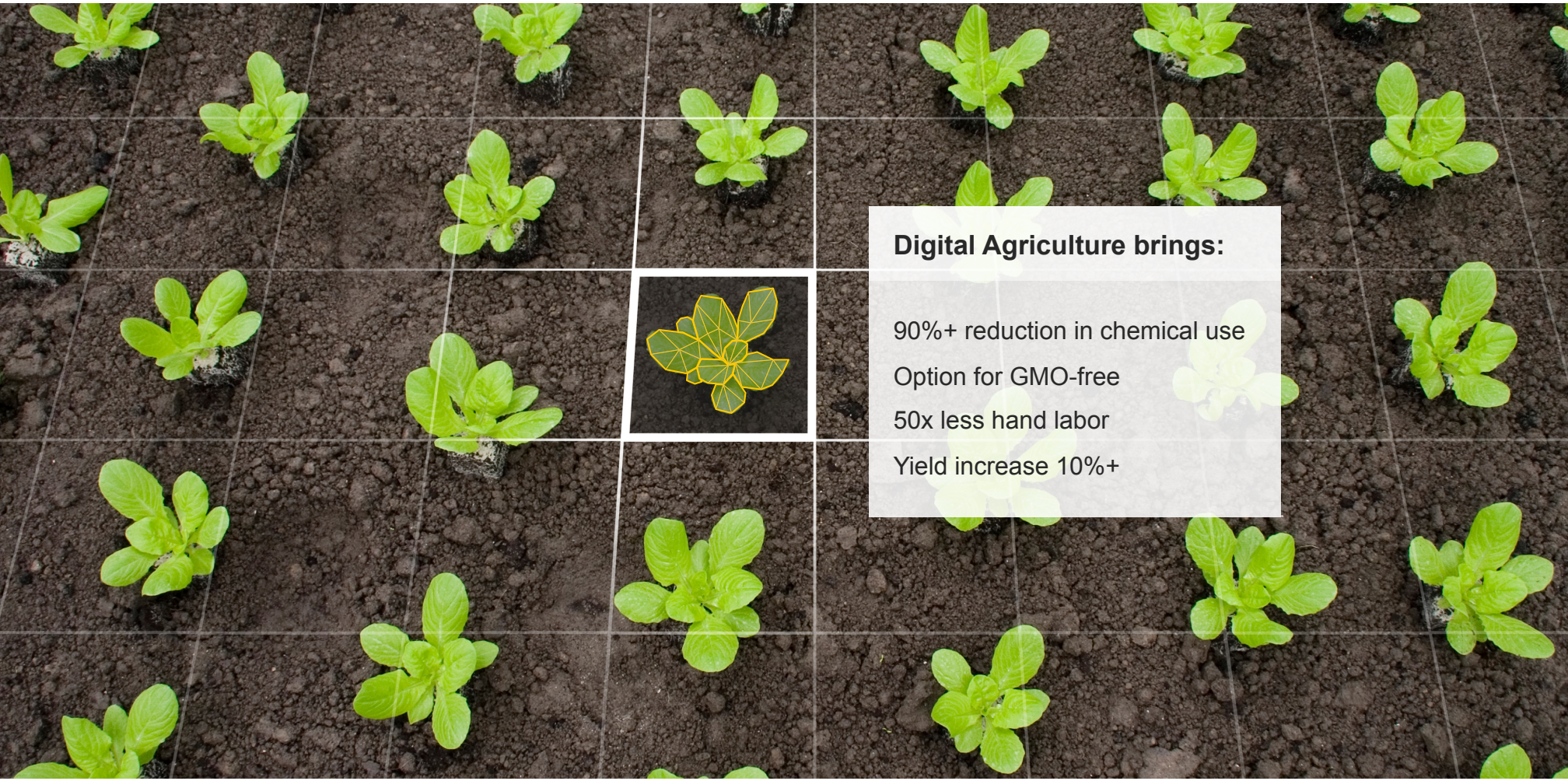
2015 | Weed Resistance is a Global Problem, with $25B Spent Annually



Source: www.weedscience.org

Blue River Potential

Managing Fields at the Plant Level



Digital Agriculture brings:

90%+ reduction in chemical use

Option for GMO-free

50x less hand labor

Yield increase 10%+


CHEMICAL
DIGITAL

Robotics

Three interesting challenges in agricultural robotics

1. **Navigation**

How do we get to the right spot at the right time?

Automated steering, then automated vehicles

2. **Detection**

How do we sense the situation when we arrive?

Seeing, processing, measuring, and recording

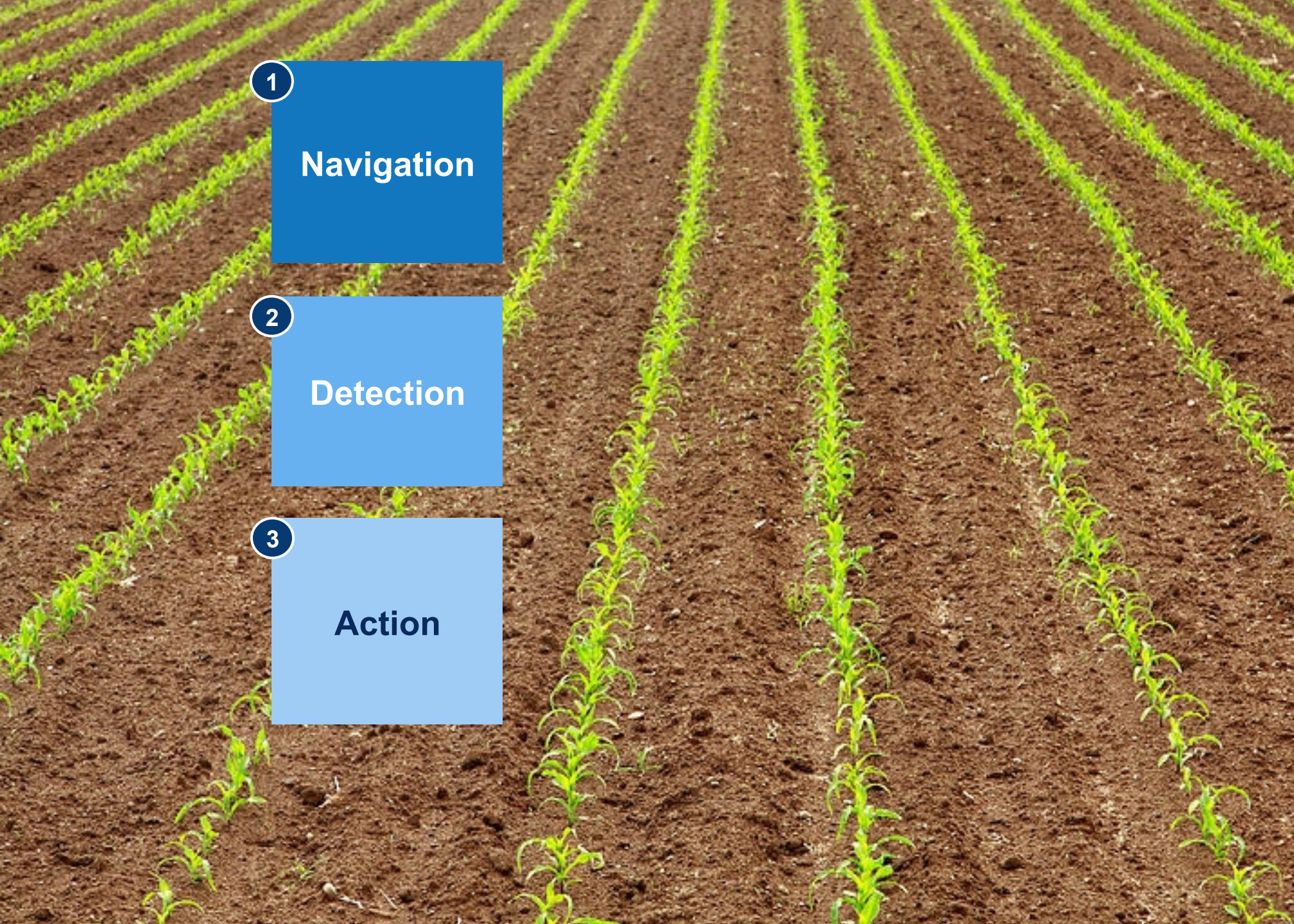
3. **Action**

How do we perform the correct action precisely?

Collect data, decide what to do, and act


LEONI
ABB


TIP TOP
ONE WAY
NEW
TAXI
Computer History Museum
Google
6VVA094
RX 450h
self-driving ca


1
Navigation
2
Detection
3
Action

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Lettuce

Lettuce thinning: identify & select best 30,000 plants / acre

Manual labor is traditional option

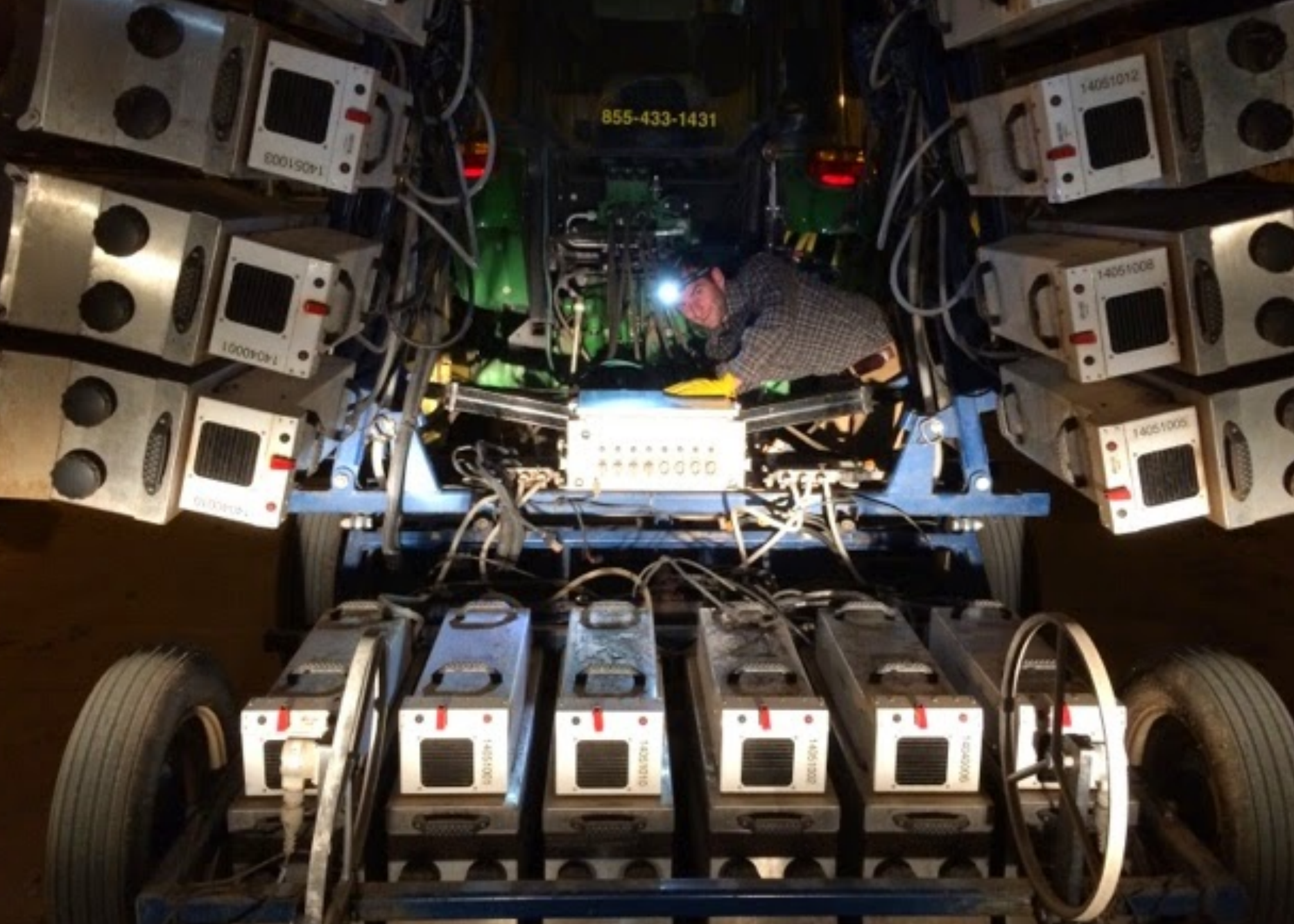
Blue River thins with a vision system & fertilizer spray

LettuceBot

5,000 plants cared for every minute


Google


14101032


855-433-1431

Three interesting challenges in agricultural robotics

1 **Navigation**

How do we get to the right spot at the right time?

Automated steering, then automated vehicles

2 **Detection**

Phenotyping

How do we sense the situation when we arrive?

Seeing, processing, measuring, and recording

3 **Action**

Lettuce

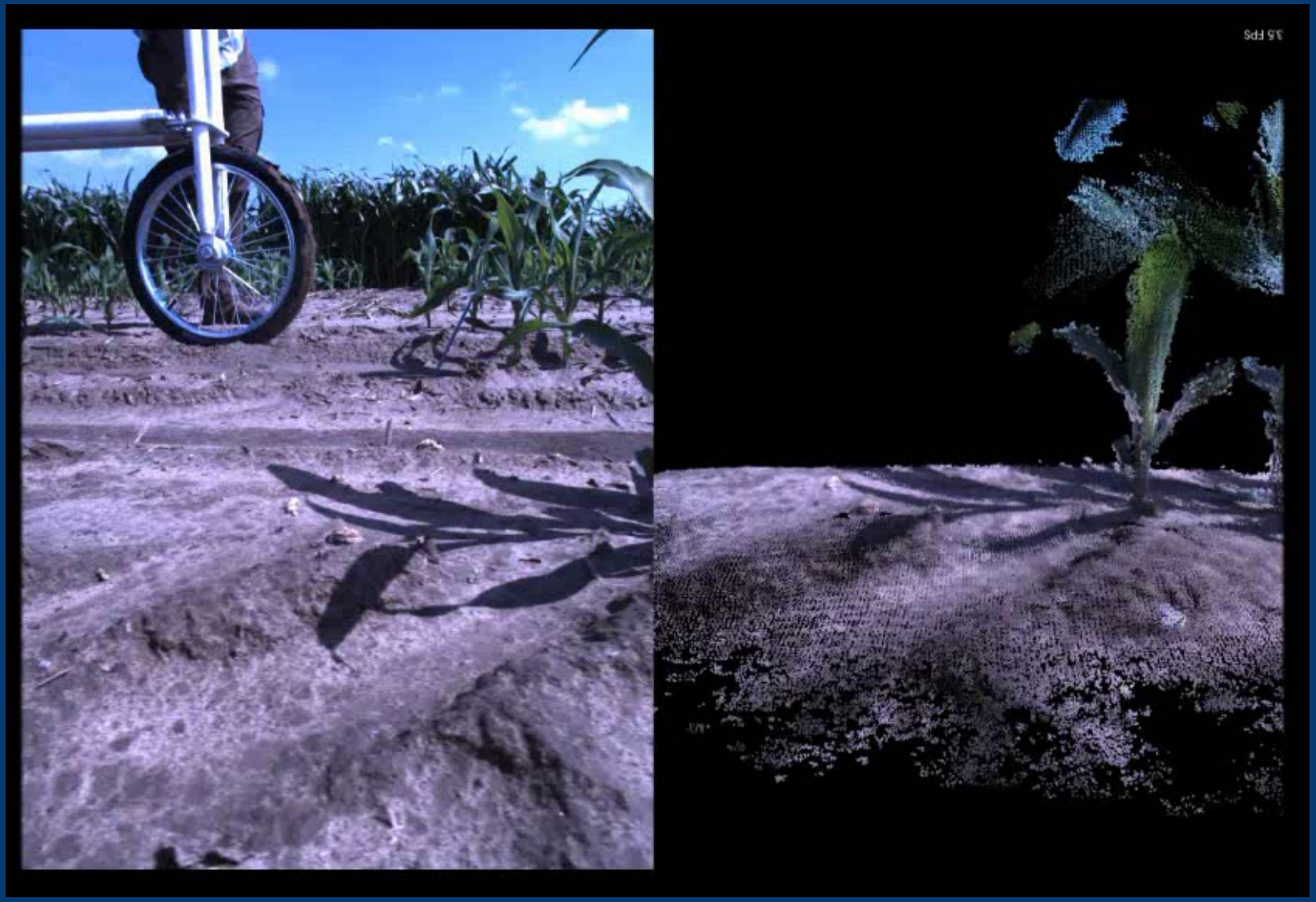
How do we perform the correct action precisely?

Collect data, decide what to do, and act

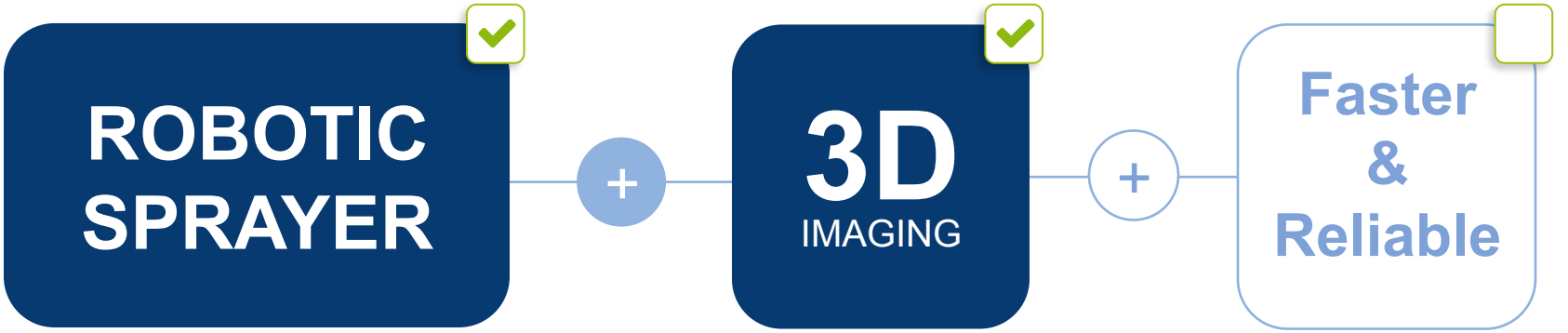
BLUE RIVER TECHNOLOGY

3D data

Powerful source of plant information



Coming Soon: Expansion to Digital Weeding



Questions?