Purdue University is an equal access/equal opportunity institution.
• 10 New Faculty Lines in Plant Biology
• Center for Molecular Agriculture
Expand capacity in plant biology

• Center for Molecular Agriculture
  – **10 New faculty lines** (appointments in Center and home department)
  – Pre-college Summer Institute to recruit students into STEM
  – Fellows program for undergraduate research opportunities
  – Plant Biotechnology
  – Synthetic Biology
New Faculty

- 5 plant sciences positions in Agronomy, Botany and Plant Pathology and Horticulture and Landscape Architecture to be hired this year
- 10 new faculty positions in plant biology
  - 5 in 14-15
  - 5 in 15-16
- Further leverage with Engineering, Science and open positions in the future
Transform plants to improve crops

• Invest in plant transformation core facility
  – Tissue culture facility
  – Molecular biology lab
  – Plant growth chambers
  – Greenhouse

• Build in versatility for various crops

• Invest in teaching lab upgrades in Lilly, Biochemistry, and Horticulture buildings
Automate Large Scale Plant Analysis

• Agronomy farm becomes the phenotyping platform

• Components:
  – High throughput data pipeline
  – Data command and control center
  – Seed and plant storage and handling
  – Field lab for phenotyping tools and storage
  – Student innovation hub
Commercialize products

• Invest in capacity/partnerships to move IP to market
• Work with Ag Alumni Seed for field testing
• Develop Incubator space at Purdue Research Park
  – Food products
  – Other products
• Marketing manager and technical support
Student Engagement

• Molecular Agriculture Summer Institute
  – Recruit students into STEM
  – Fellows program for undergraduate research

• Plant Biotechnology and Synthetic Biology

• Certificate in Entrepreneurship and Innovation
Faculty/Staff Engagement

• Big Moves is a broad concept
• Needs faculty and staff leadership and involvement to move from concept to reality
• Industry partners will be engaged
  – Share knowledge and ideas
  – Potential leverage
• Faculty/staff teams will be assembled for stages to provide insight and guidance
Brief Overview of Next Steps
Need Faculty and Staff Input

• 2013-14
  – Initiate discussions about faculty hires
  – Develop plans and build transformation lab and student labs
  – Build data infrastructure at ACRE
  – Plan facility at Agronomy farm

• 2014-15
  – Initiate planning for summer institute
  – Begin faculty hires
  – Build facility at Agronomy farm
  – Begin planning for incubator facility
Questions?