



## Our Mission:

We believe healthy food should be convenient, affordable and sustainable.

### Diet is #1 cause of poor health in America

- Up to half of cardiovascular, stroke and diabetes deaths are result of diet\*
- Low-income and minority populations are especially impacted\*

\*JAMA. 2017;317(9):912-924. doi:10.1001/jama.2017.0947



Junk Food

US Salty Snacks = \$24B industry

- Convenient
- Cheap
- Everywhere

Fresh produce

US Produce Industry = \$120B

- Usually requires prep
- Best items can be expensive
- Hard to find in food deserts



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# Our Founders

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Proven leaders in technology and agriculture, experienced in bringing products to market



**Tom Adams, CEO**

30 years of scientific leadership at Monsanto and Millennium Pharmaceuticals



**Haven Baker, CBO**

Launched the Innate potato, one of the first ag biotech products in the US with both farmer and consumer benefits.

## Co-founders



**Feng Zhang**  
MIT, Broad Inst.  
developed the CRISPR-Cas9 system for gene editing in eukaryotic cells



**David Liu**  
Harvard  
pioneered base editing



**J. Keith Joung**  
Mass General Hospital  
invented and optimized important innovations in gene-editing technology

# Our funding

\$25M

Series A, Co-led by Bayer  
Growth Ventures and  
Deerfield Management



**DEERFIELD**

First ever ag deal for Deerfield

\$100M

Exclusive 5 year **research  
collaboration** with Bayer in  
Corn, Soybean, Wheat, Canola  
and Cotton



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# North Carolina Strength in Agriculture and Biotechnology Creates an Outstanding Opportunity for Pairwise



## Greenhouse & Growth Facility

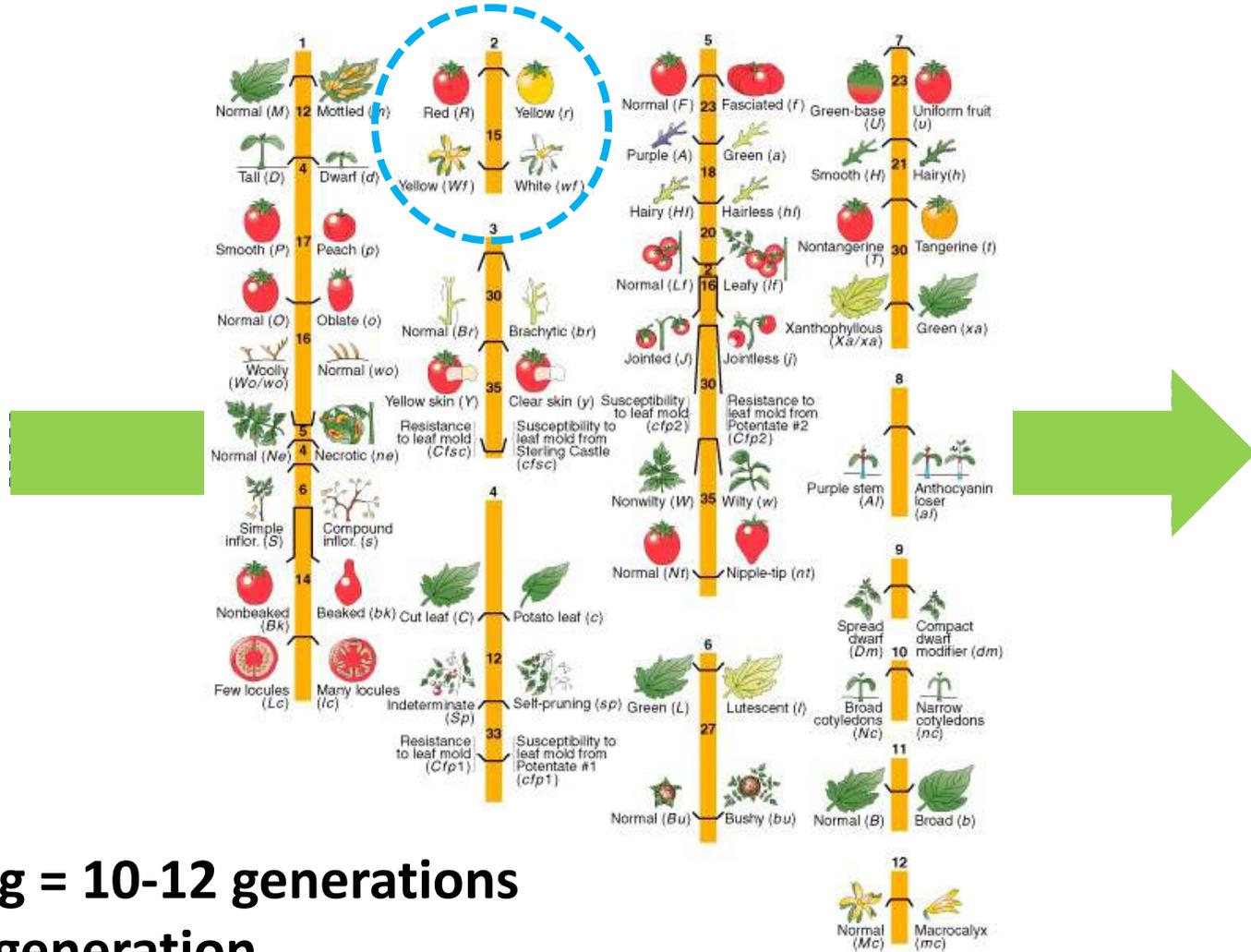
- 24,000 sqft of greenhouse
- 16 Growth chambers
- 40,000 sqft of head house & accessory space



## Downtown Durham Headquarters

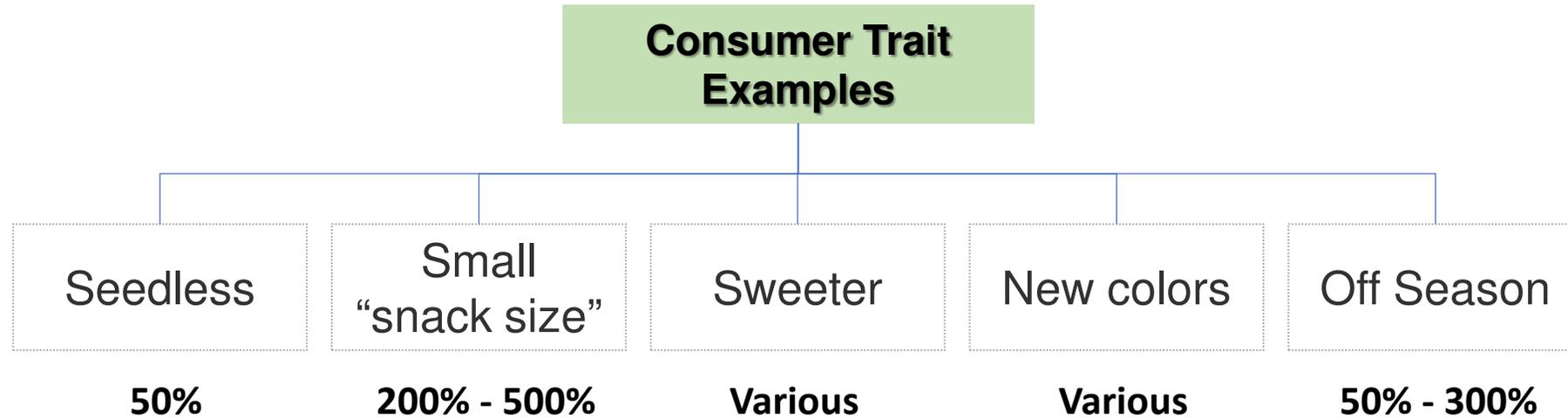
- 36,000 sqft of cutting-edge office & lab space
- Historic textile mill building
- Expected move-in July 2019

# CRISPR makes benefits possible that once took generations of breeding



Conventional crossing = 10-12 generations  
CRISPR breeding = 1 generation

# Consumers are willing to pay for convenience, availability, and sometimes taste



## Demonstration of Consumer Willingness to Pay

Seedless fruits on the market today are associated with avoiding "spitting out seeds" They capture a 25-75% price premium. Seedless mango premiums should be higher as they provide even more convenience by enabling easier cutting and preparation.



The convenience of baby carrots contributed to a doubling of the U.S. carrot market within 10 years of their introduction

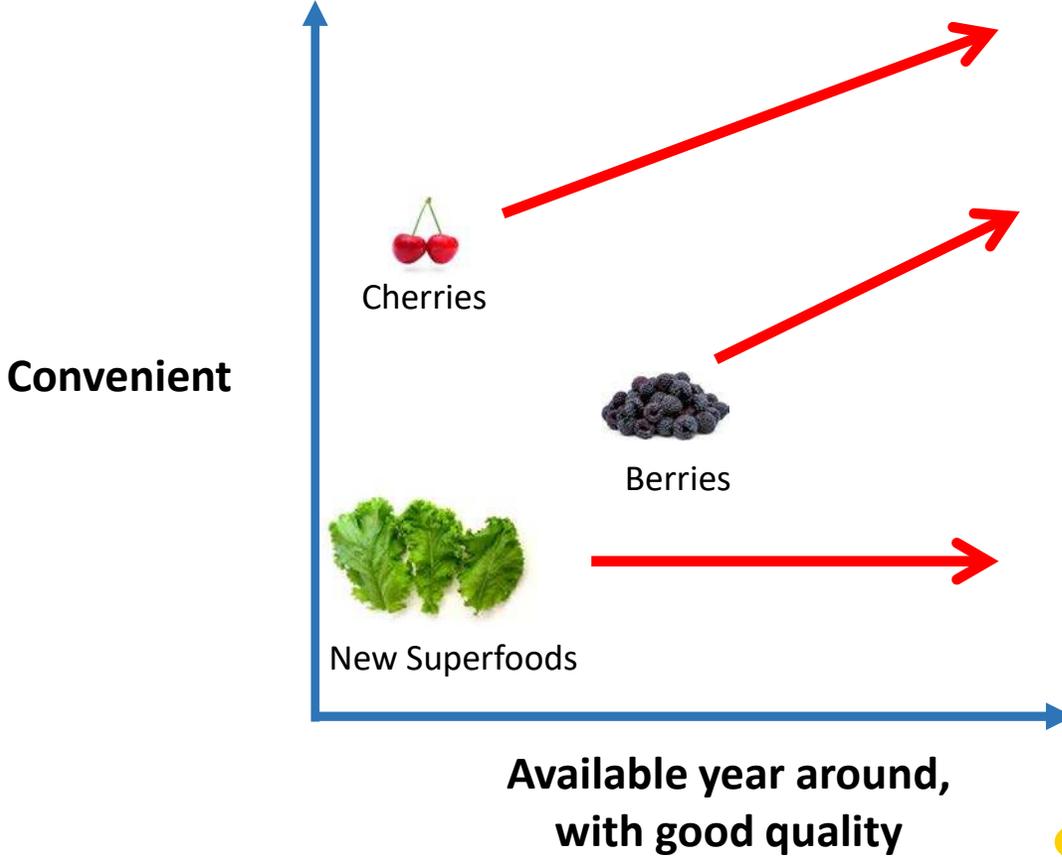
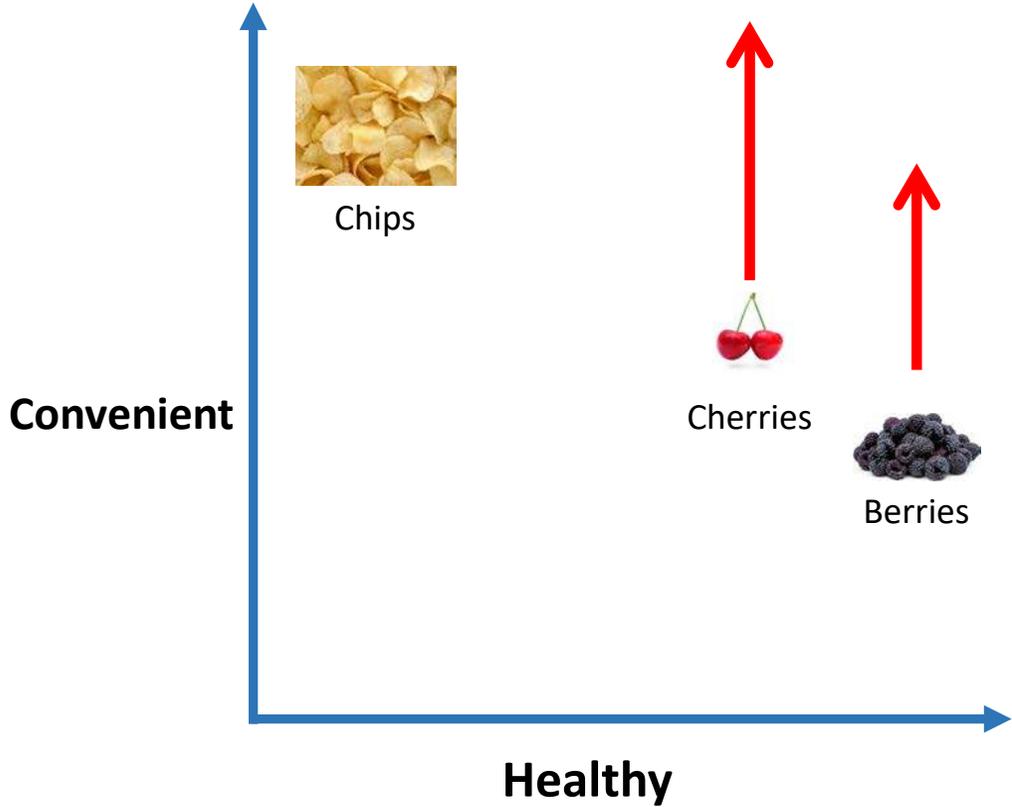


Fresh cut produce (such as mangoes), which represent the extreme end of convenience, gather >500% price premium over fresh whole



# CRISPR can Deliver Healthy Consumer Choices

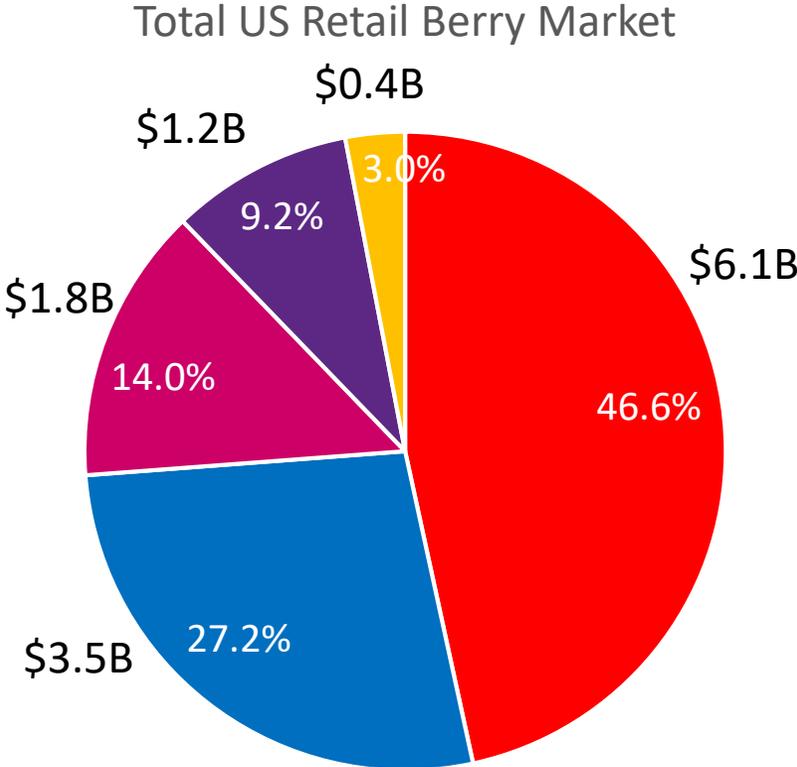
- 1) Drive Healthy Snacking through Convenience
- 2) Make new, healthy produce (superfoods) available



Current US Retail Market Sizes: Cherries - \$1.5B; Blackberries - \$1B; Raspberries - \$1.4B



# North Carolina is a Prominent Producer in the \$13 Billion US Retail Berry Market



Berry	Average Retail Price (per pound)	Market Growth 2017	Peak season	Production Regions
<b>Strawberry</b>	\$2.56	+2.2%	Feb-Sep	CA, FL, NC, Mexico
<b>Blueberry</b>	\$4.74	+8.4%	Dec-Aug	CA, FL, MI, NC, NJ, OR, WA, Canada, Chile
<b>Raspberry</b>	\$7.47	-0.1%	Jun-Sep	CA, OR, WA, Canada, Mexico, Chile
<b>Blackberry</b>	\$6.03	+8.8%	Jun-Aug	CA, GA, OR, NC, Chile, Mexico

- All berries are essentially available year-round
- Table shows regions that sell to US
- Retail prices and growth rates from 2017 IRI scan data

■ Strawberries ■ Blueberries ■ Raspberries ■ Blackberries ■ All Others

• Retail sales values based on doubling of 2017 IRI scan data

# Vision: Regional Partnership and Infrastructure to Deliver Locally Farmed Fresh Produce

Example: New, differentiated berry products

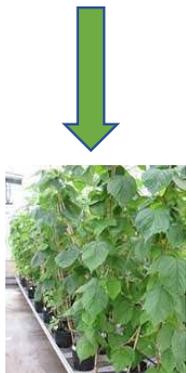
- Partner with breeder
- Berries are already “closed loop”
- Improved margins



Pairwise partnership w leading berry breeder



Pairwise partners with or buys berry Packer/shipper/ marketer



Berry Partner

New varieties



3,500 crates/acre



Packer/shipper



Retail

# What makes us unique

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## Our technology

- Exclusive license to base-editing IP & MGH enzymes
- Comprehensive CRISPR IP
- Partnership with Bayer gives us access to expertise in transformation techniques, data science and IP
- Access to the world's leading CRISPR experts



## Our team

- Track record of successfully bringing products to market
- One of the world's largest gene editing groups
- Diverse range of expertise in food, marketing, & crop genetics



## Our mission & culture

- Focus on creating differentiated consumer products
- Open to deep collaborations
- Courage to tackle non-commodity crops that have been underserved by other methods

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Thank You



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