The National Academies of
SCIENCES · ENGINEERING · MEDICINE

FEDERAL FACILITIES COUNCIL

Panel 3: Technology Transfer and Development

Mojdeh Bahar

Agricultural Research Service, USDA

USDA United States Department of Agriculture

Agricultural Research Service

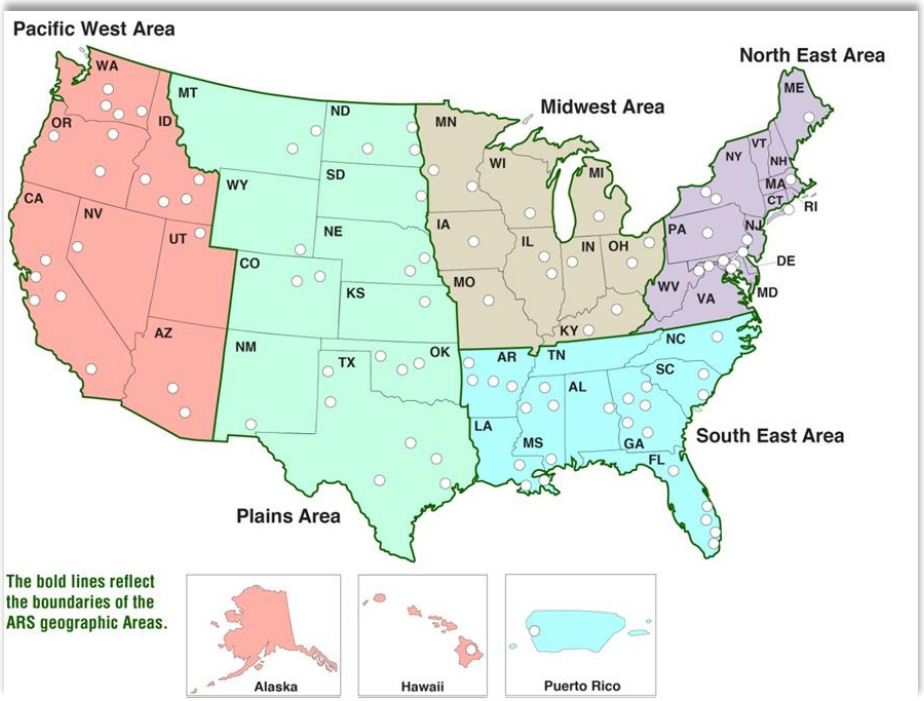
Licensing Success Stories: the USDA Example

Mojdeh Bahar, J.D., M.A.,CLP
Asst. Administrator
Office of Technology Transfer
ARS-USDA

NSTC TT Panel
2017 Federal Facility Workshop

ARS Profile

- 690 research projects, 17 National Programs
- 2,000 scientists & post docs
- 6,000 support employees
- 90 locations throughout US
- ~$1.1 billion annual budget



Technology

Treatment for fresh-cut fruit & vegetables that maintain their natural flavor, texture, & color for up to 21 days

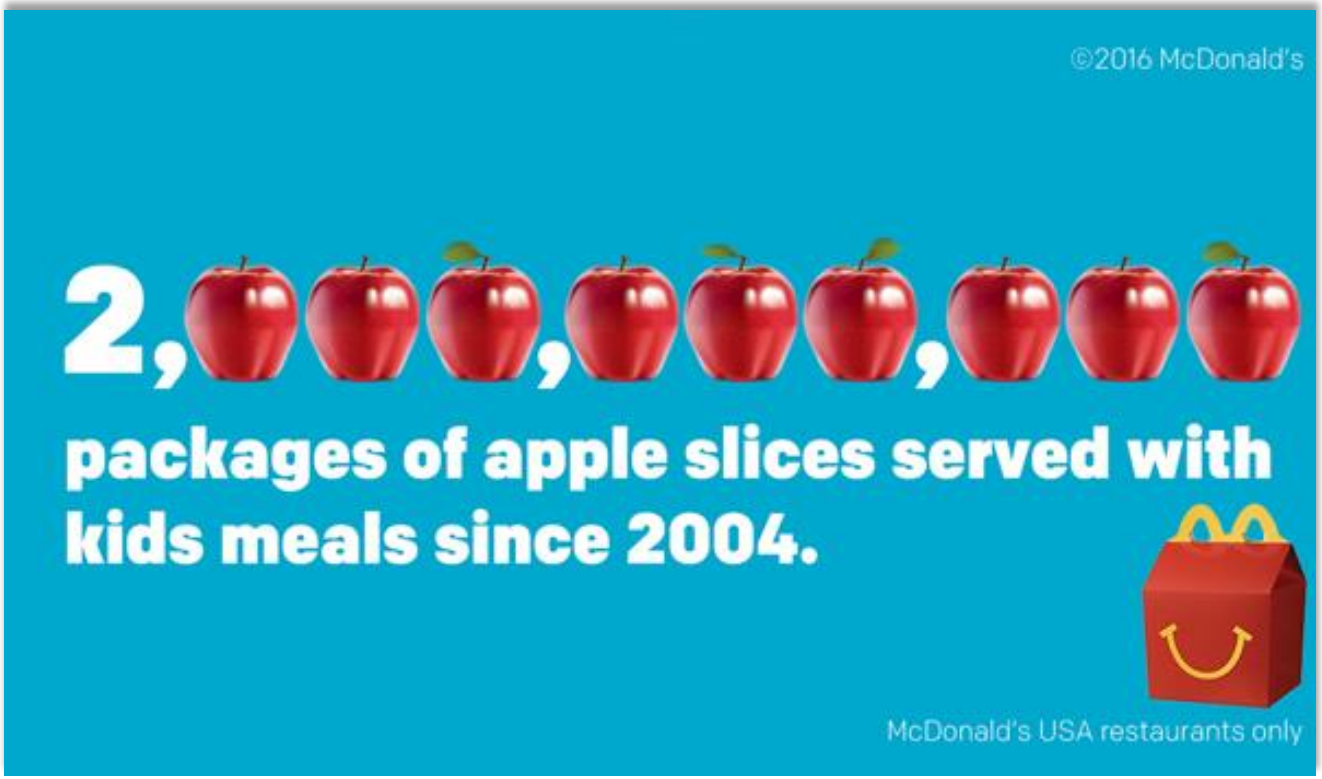
1995 USDA & Mantrose-Haeuser co-develop and co-patent treatment technology under a CRADA

1999 Patent US 5,939,117: "Methods for preserving fresh fruit and product thereof"

Mantrose-Haeuser exclusively licenses technology & develops NatureSeal^{R}

2004 NatureSeal^{R} is used in McDonald's Apple Dippers^{TM}

2015: McDonald's served 250 million packages of sliced apples, more than 10% of all fresh sliced apples sold in the US



Technology

Method for vaccinating chickens through the injection of eggs

1984 Patent US 4,458,630: "Disease control in avian species by embryonal vaccination"

1986 Exclusive license to Embrex
Embrex awarded USDA-SBIR Phase I

1987 Embrex-ARS CRADA signed
Embrex awarded USDA-SBIR Phase II

1992 Embrex introduces commercial produce called 'Inovojet' based upon SBIR-CRADA results

2006 Pfizer Animal Health acquires Embrex for ~$155M

2015: **Inovojet used by nearly all U.S. hatcheries & ~15 billion eggs vaccinated worldwide annually**

Technology

Gluten & allergy free rice flour for cooking

1984 Patent US 6,224,921: “Rice flour based low oil uptake frying batters”

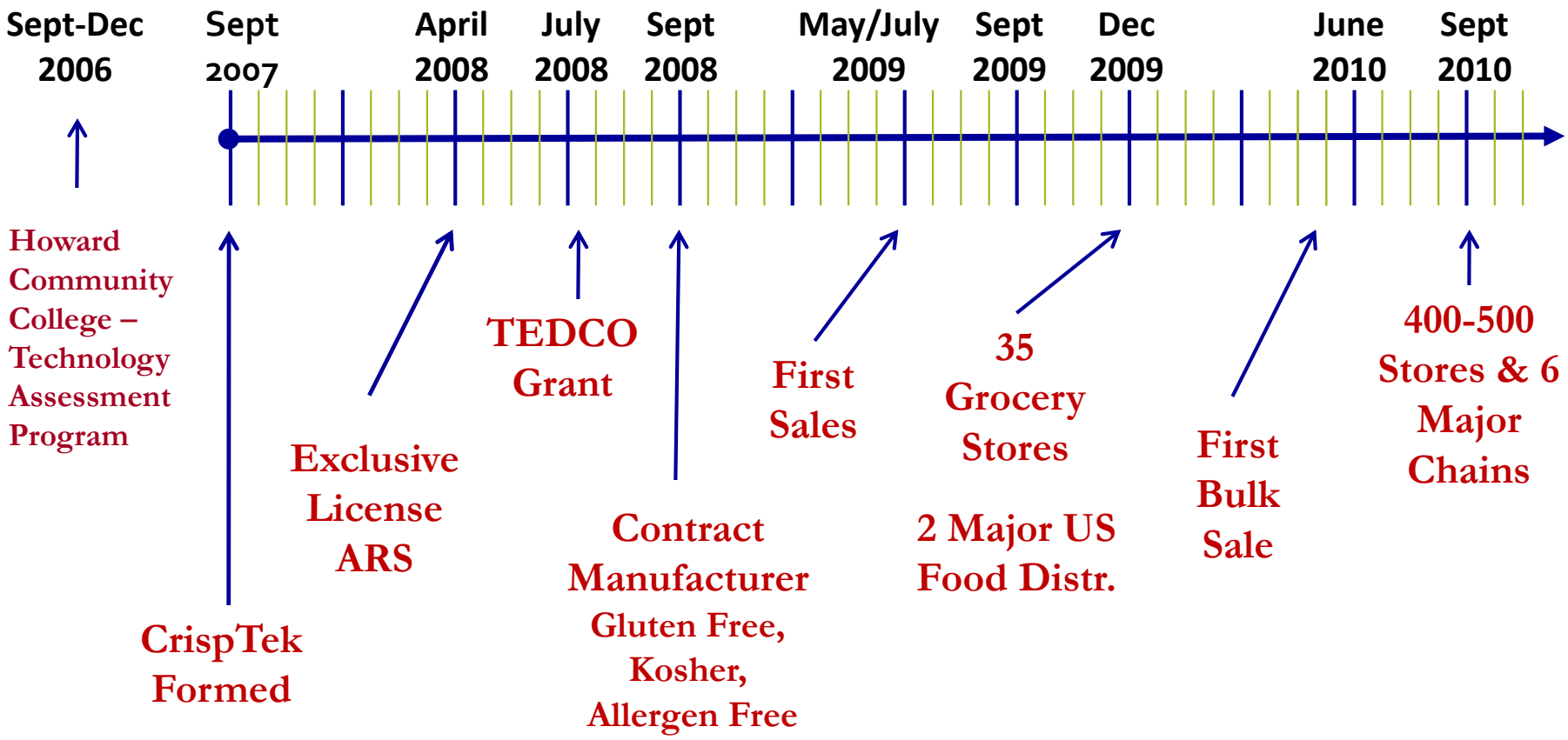
2006 Howard Community College – Technology Assessment Program identifies a new value position- gluten free.

2007 CrispTek exclusively licenses technology & develops Choice Batter

2009 Choice Batter first sales

2012: $4.7M sales and 95 jobs in 4 states (MD, IA, IL, TX)

2012: $4.7M sales, 95 jobs in 4 states (MD, IA, IL, TX)



Thank you for your kind attention...

Mojdeh Bahar
Assistant Administrator
Office of Technology Transfer
5601 Sunnyside Avenue, 4-1156
Beltsville, MD 20705
(O) 301-504-6905
Email: mojdeh.bahar@ars.usda.gov