



kalsec®

PRESENTATION FOR:
**Kalamazoo National Historic Chemical
Landmark Dedication Event 2019**

May 17, 2019

Presented by:

Don Berdahl, Chief Technical Officer

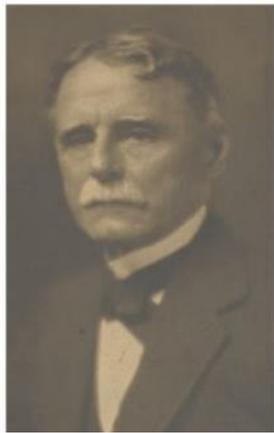


KALSEC - HISTORY



1868

A.M. Todd Company



Albert .M. Todd



1937

The Farmers Chemical
Company



Paul H. Todd, Sr.



1958

Kalamazoo Spice
Extraction Company
(Kalsec)



Paul H. Todd, Jr.

Currently
George Todd
Chairman

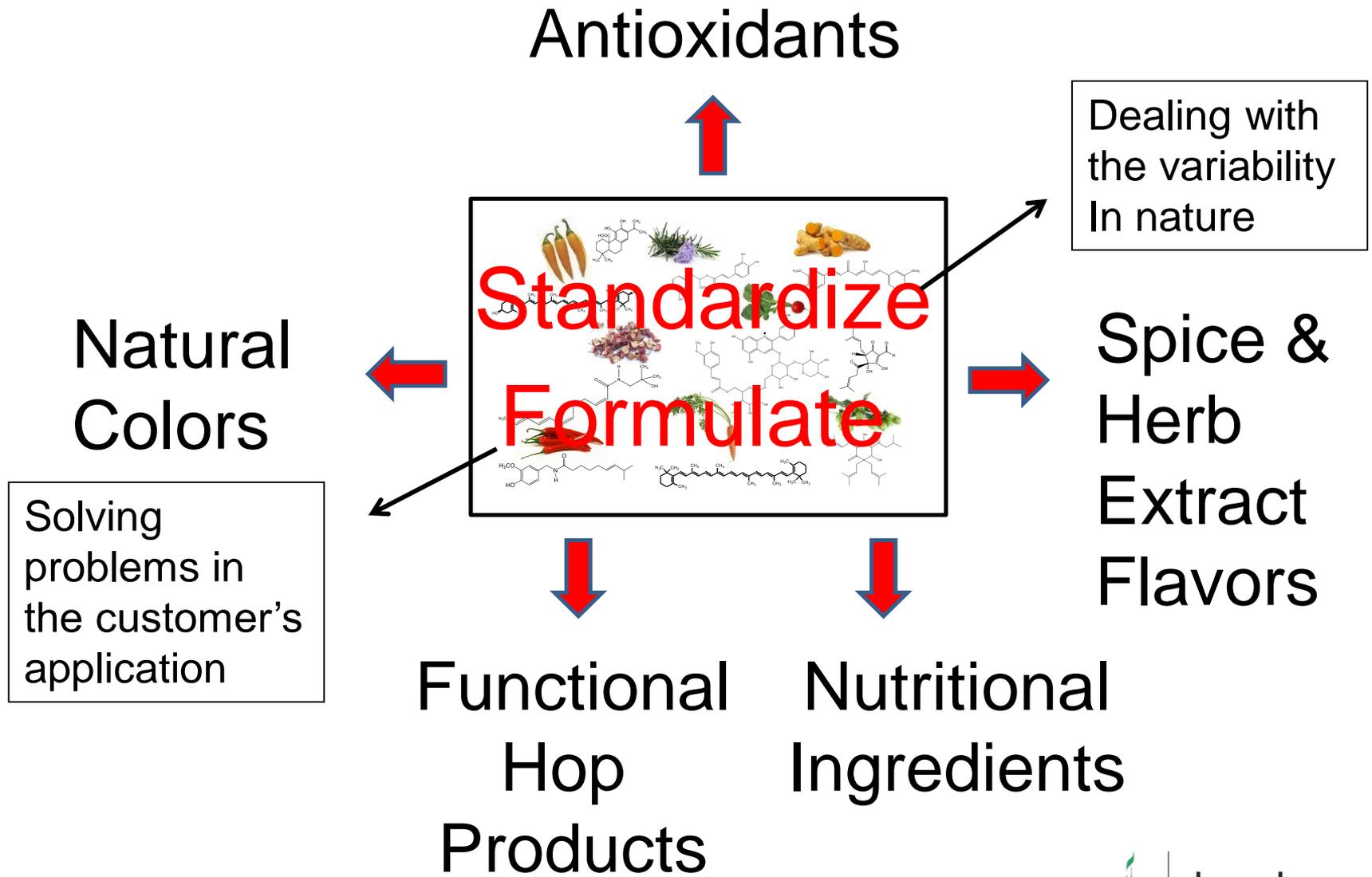
Martha Todd
Vice-Chair
(5th generation)

INSPIRED BY THE WORLD'S BEST CHEMISTS

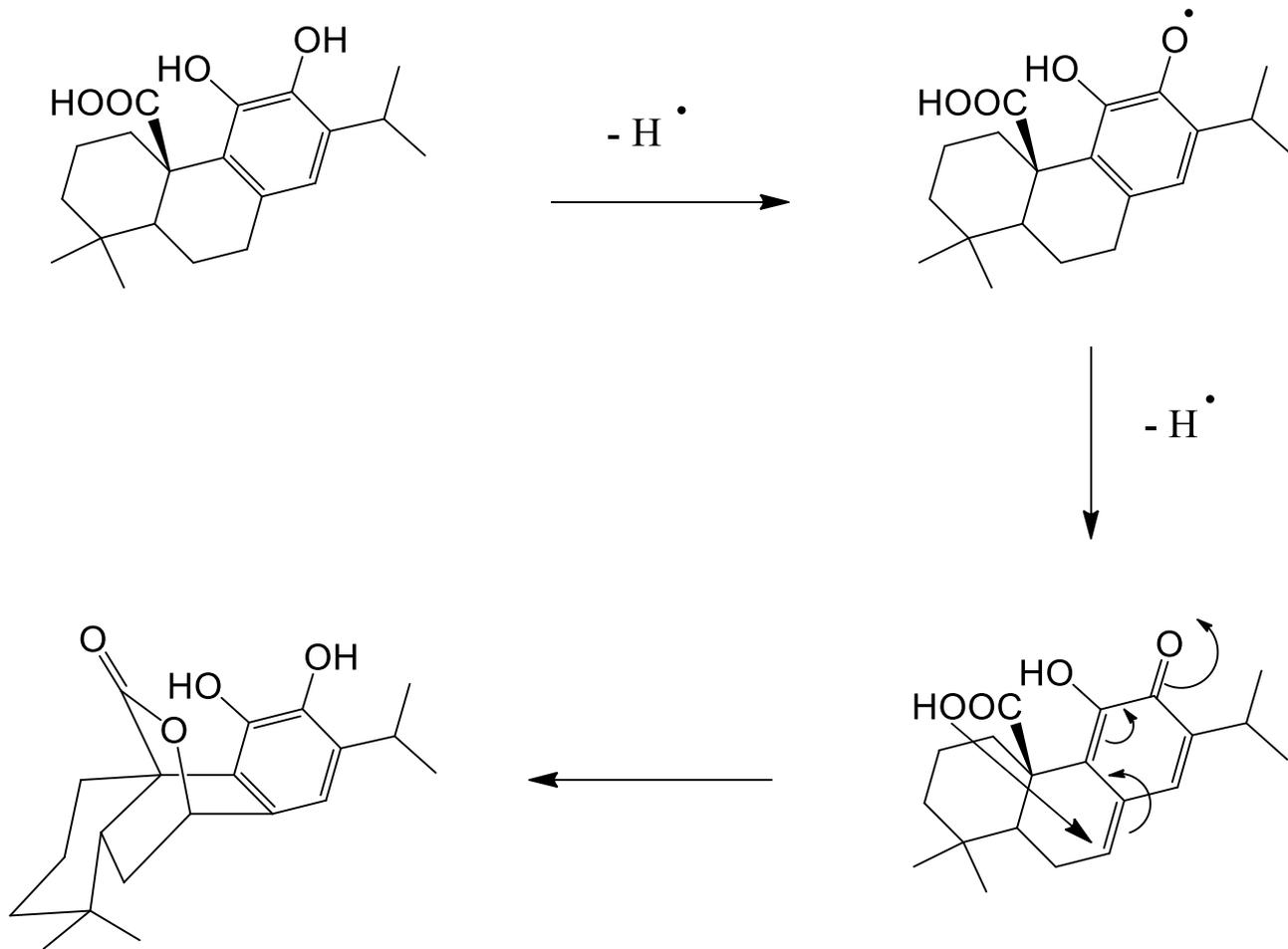
The image features a central collage of fresh produce and herbs, including yellow and red peppers, rosemary, ginger, radishes, and carrots. Overlaid on these images are various chemical structures representing natural products. These structures include:

- Complex polyenes with multiple methyl groups and hydroxyl groups.
- Terpenes and other cyclic structures.
- Phenolic compounds with multiple hydroxyl groups.
- Carotenoid-like structures.
- Complex structures with multiple hydroxyl and methyl groups.

A scientist in a white lab coat is shown holding a flask containing a red liquid, positioned near the bottom center of the collage.



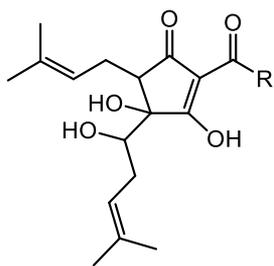
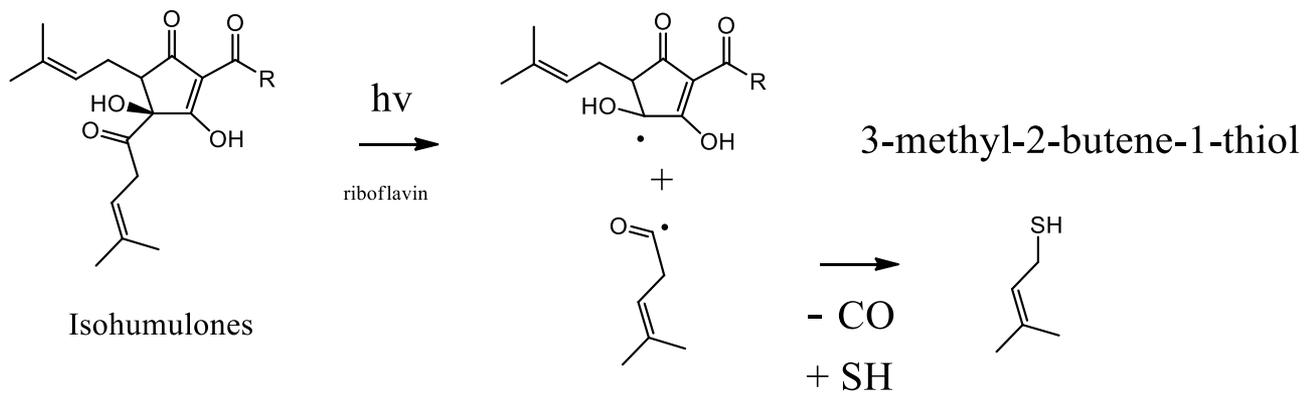
AO Regeneration – Carnosic Acid to Carnosol



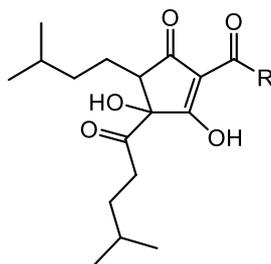


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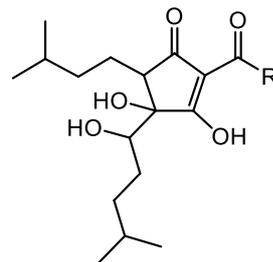
Preventing Skunky Beer



Rho



Tetra



Hexa



PRODUCTS

Look Better, Taste Better and
Last Longer Naturally.®



COLORS

**SPICE &
HERB FLAVOR
EXTRACTS**

ANTIOXIDANTS

**ADVANCED
HOP EXTRACTS**

QUALITY

In the field - In processing & manufacturing
In customer service





Row II3
H443028



WE PURCHASE FROM 46 COUNTRIES

SELL IN OVER 70



Black Pepper



Annatto



Asafoetida



Anise



Cinnamon



Nutmeg



Clove



Hops

KALSEC HAS ALWAYS BEEN FOCUSED ON QUALITY



Paul Todd Jr. was an early adopter of gas chromatography – and the first to use it to measure spice oleoresin quality.

Investment in state-of-the art analytical equipment continues today.



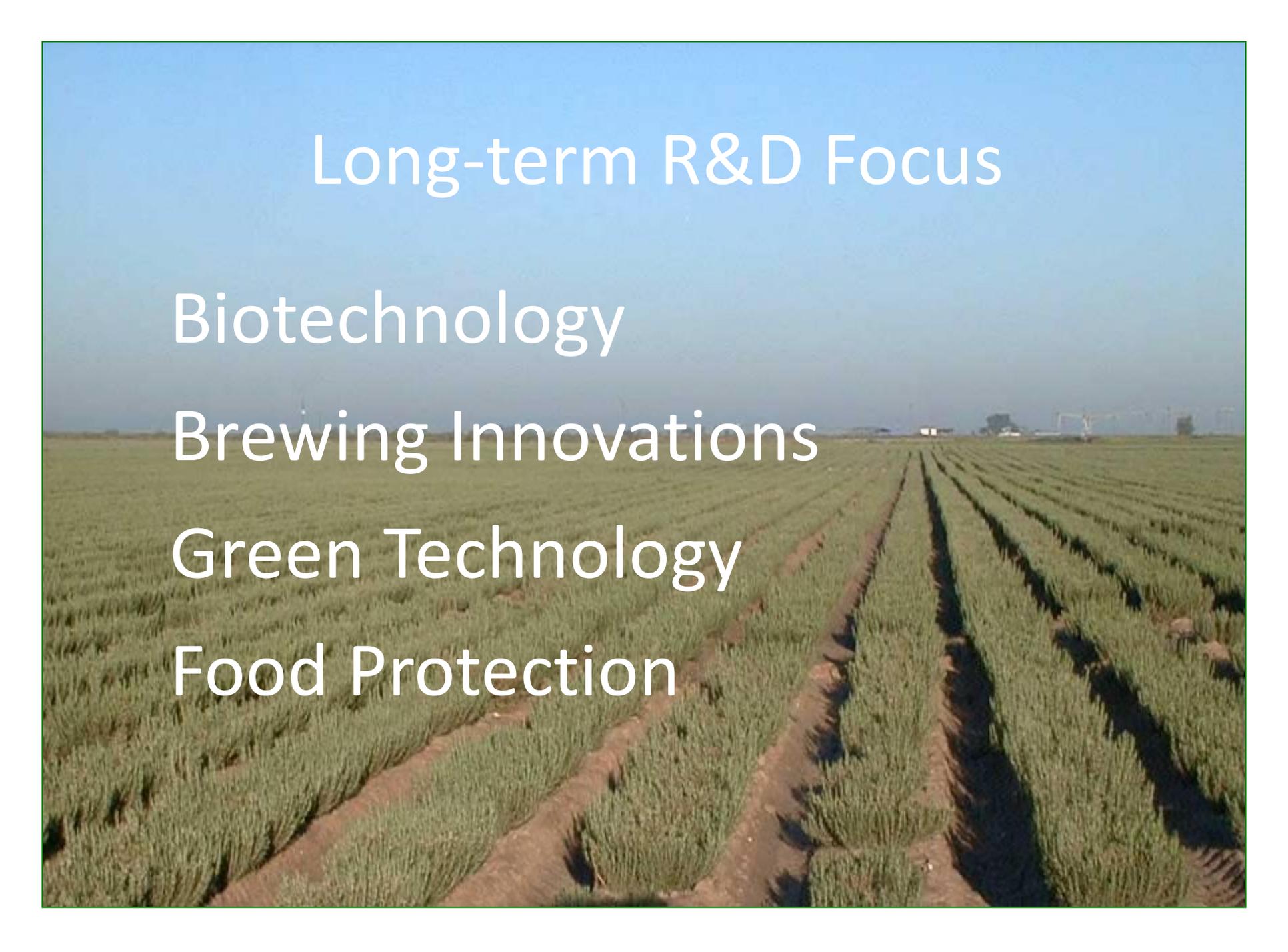
SCIENCE

Global Capabilities



- ▶ R&D locations:
 - ▶ Kalamazoo, USA
 - ▶ Mildenhall, UK
 - ▶ Shanghai, China
 - ▶ Kuala Lumpur, Malaysia
- ▶ Kalsec R&D facilities:
 - ▶ 49 Scientists
 - ▶ 22 PhDs
 - ▶ 14 different languages spoken (in Kalamazoo)
 - ▶ 50/50 Female - Male



A photograph of a vast agricultural field with rows of green crops under a clear blue sky. The crops are arranged in neat, parallel rows that recede into the distance. The sky is a uniform, clear blue. In the far distance, some structures and possibly wind turbines are visible on the horizon.

Long-term R&D Focus

Biotechnology

Brewing Innovations

Green Technology

Food Protection



Thank You