Mike Petersen

Senior Scientist at the Wisconsin Crop Innovation Center (WCIC) at UW-Madison

Beyond CBD:

Optimized Hemp Cultivars

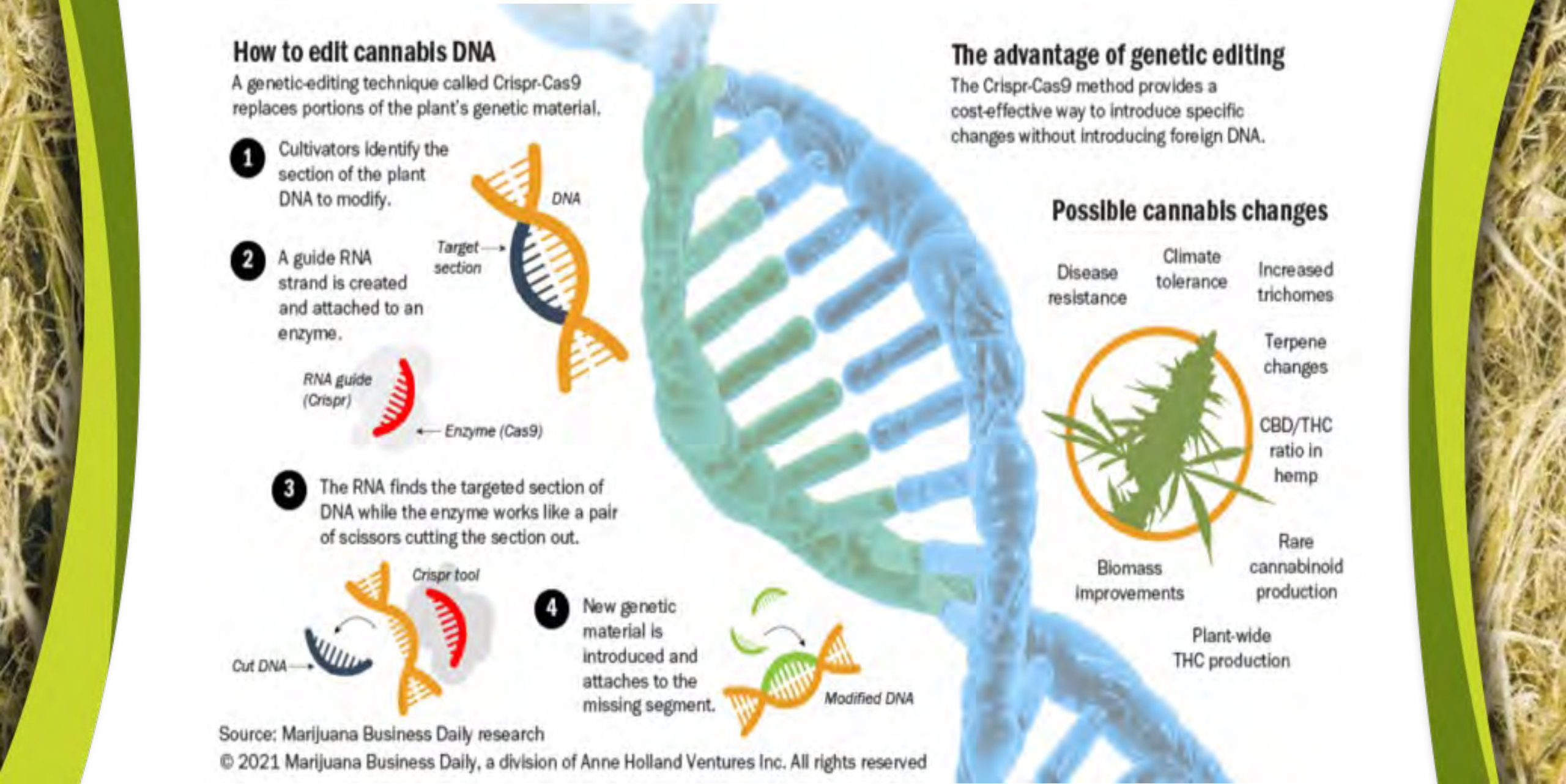
Engineering High Value Hemp Traits

Mike Petersen
Senior Scientist
Wisconsin Crop Innovation Center

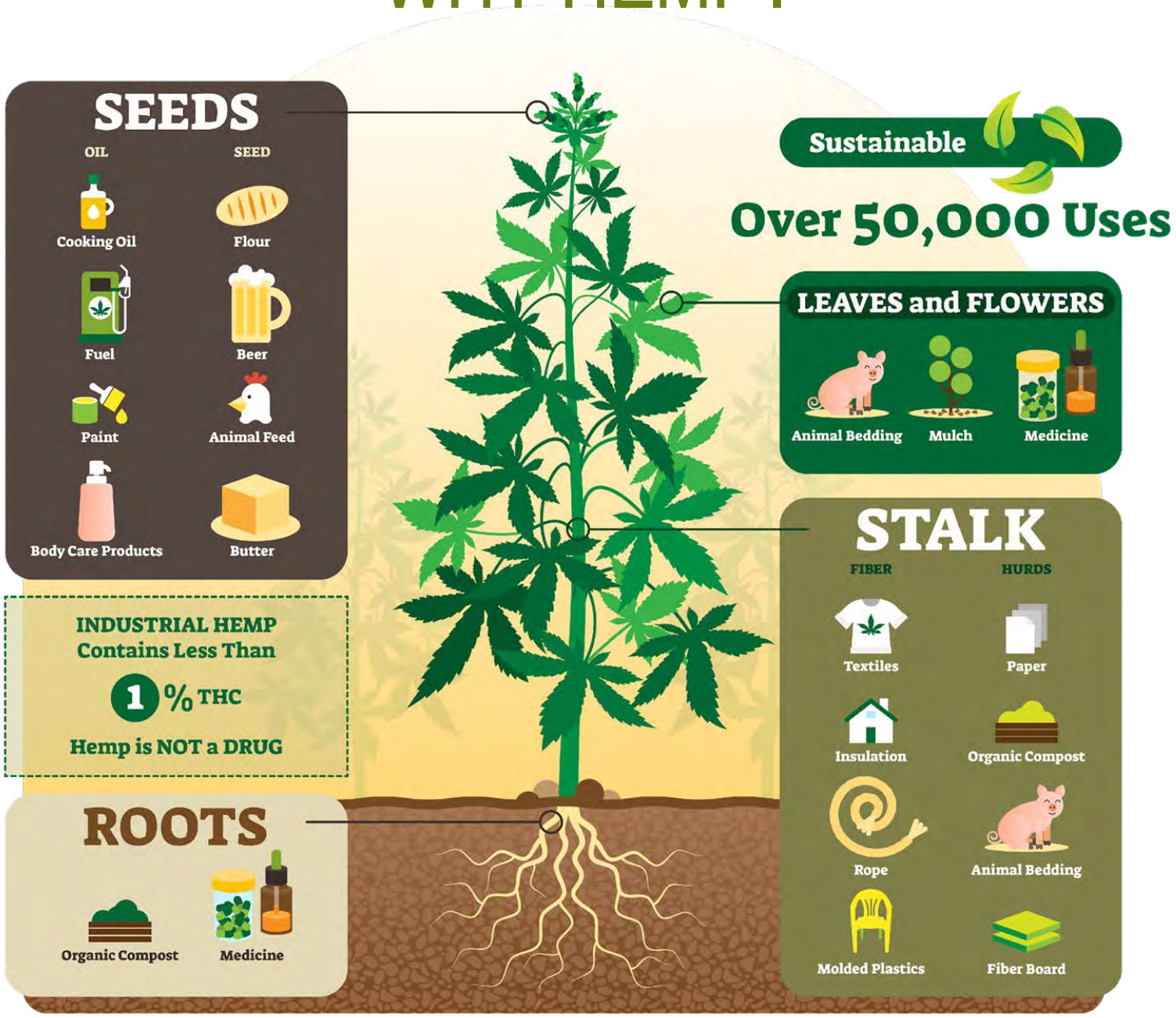
WORLD'S 1ST TRANSGENIC HEMP PLANT!

WARF
Wisconsin Alumni Research Foundation

What Can We do With This New Technology?



WHY HEMP?


SEEDS
OIL
SEED
Cooking Oil
Flour
Fuel
Beer
Paint
Animal Feed
Body Care Products
Butter
INDUSTRIAL HEMP
Contains Less Than
1 % THC
Hemp is NOT a DRUG
ROOTS
Organic Compost
Medicine
Sustainable
Over 50,000 Uses
LEAVES and FLOWERS
Animal Bedding
Mulch
Medicine
STALK
FIBER
HURDS
Textiles
Paper
Insulation
Organic Compost
Rope
Animal Bedding
Molded Plastics
Fiber Board

FIBER

$43.75B

market by 2027

2x more CO^2

capture than trees

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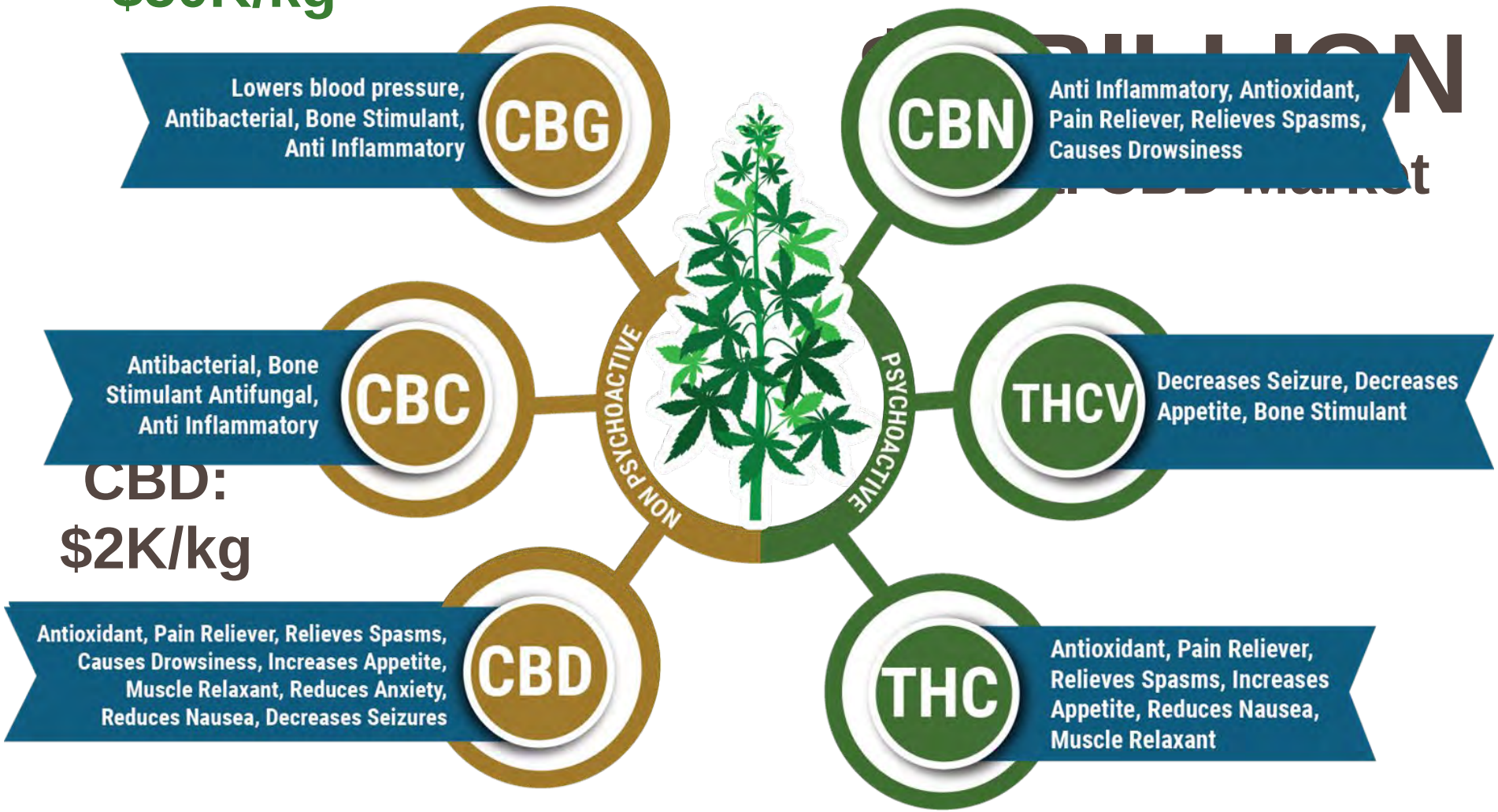
CANNABINOIDS

CBG:
$50K/kg



CBD:
$2K/kg

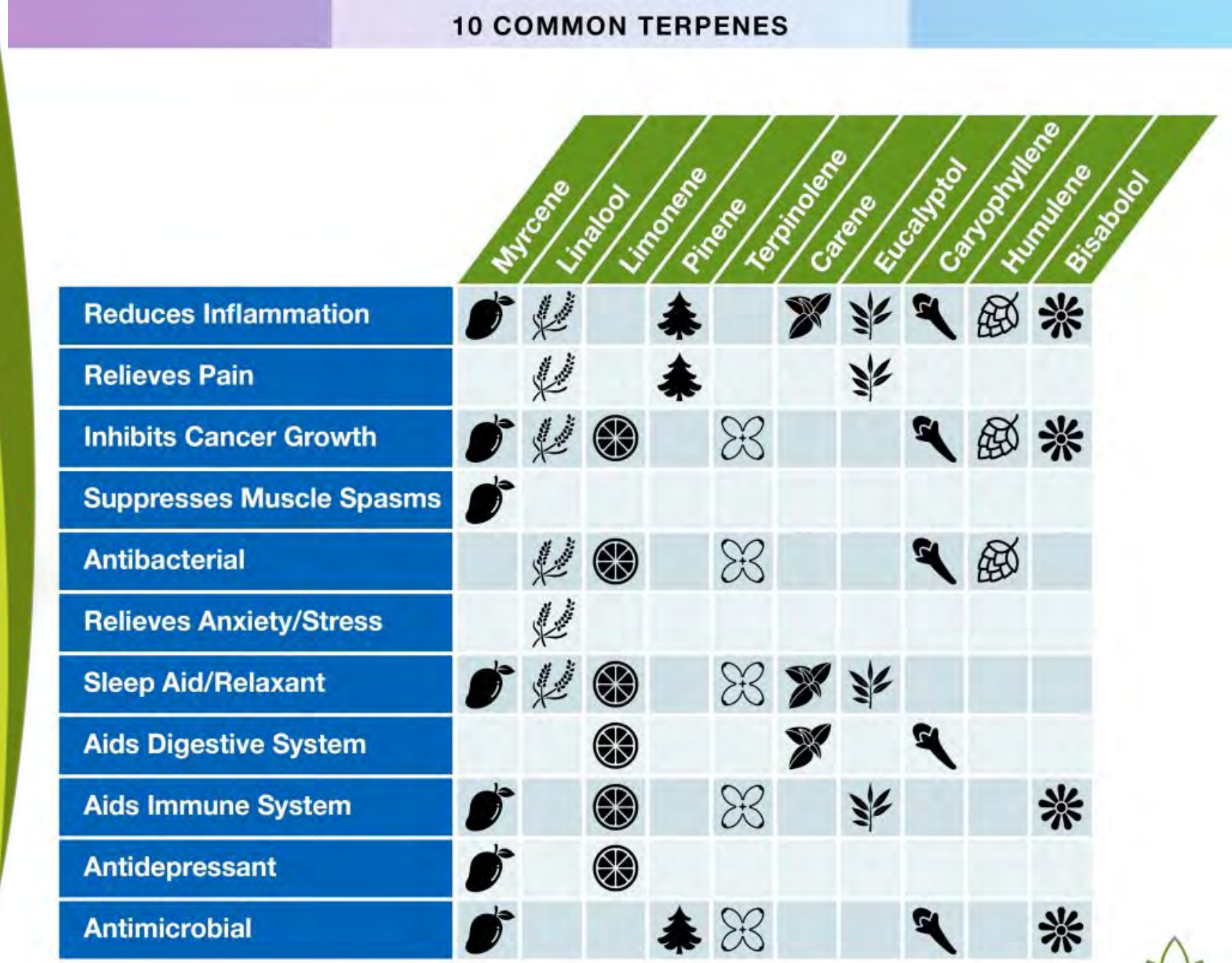
TERPENES

$774M

market by 2026

(360researchreports.com)

100+ types



TEAM

200 YEARS

COMBINED PLANT ENGINEERING EXPERIENCE

Mike Petersen

Sr. Scientist (WCIC)
Molecular biologist
Industry collaboration

Shawn Kaeppler

Professor
WCIC Director
Crop breeder, geneticist, biotechnologist

Shelby Ellison

Assistant Professor
Industry research & education liaison

WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

WISCONSIN CROP INNOVATION CENTER

TRACTION

- **Proof-of-concept plants and new traits for <u>industry customers</u>**

Hypercann agrogenetics

ZeaKal

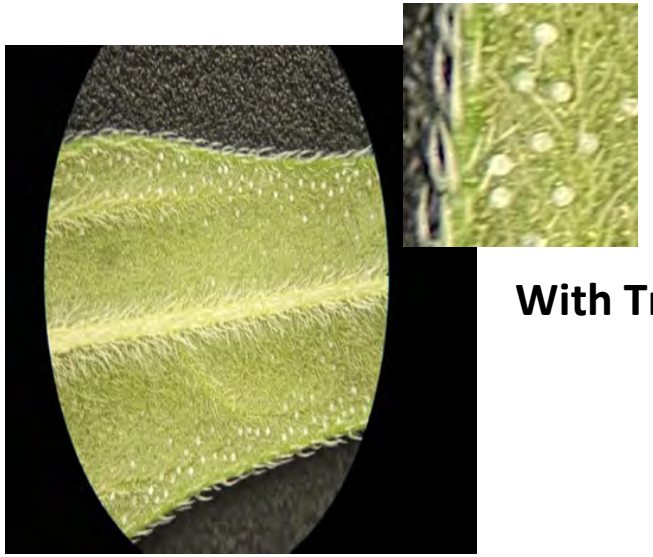
“Zeakal’s Novel Photoseed Trait Boosts Hemp Biomass Oil Output By Up To 50%”

2021 News Release (Zeakal.com)

TRACTION

- ☑ **Proof-of-concept plants and new traits for <u>industry customers</u>**
- ☑ **Plantlets for controlling cannabinoid production**

W/O Trichome Gene



With Trichome Gene

TRACTION

- **Proof-of-concept plants and new traits for industry customers**
- **Plantlets for controlling cannabinoid production**
- **>$2M funding**

USDA

WARF
Wisconsin Alumni Research Foundation

SEEKING

INDUSTRY PARTNERS & COLLABORATORS for

- ❑ **Creating new varieties for commodity growers**
- ❑ **Identifying new traits of interest**
- ❑ **People interested in commercialization**

Engineering High Value Hemp Traits

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