

**PRODUCE FOR®
BETTER HEALTH**
FOUNDATION

FRUITS + VEGGIES = IMPROVED GUT HEALTH

The Formula For Better Health & Happiness



Presented by Dr. Lara Ramdin
Chief Innovation Officer
Dole Sunshine Company





KATIE CALLIGARO

**MARKETING & COMMUNICATIONS DIRECTOR
PRODUCE FOR BETTER HEALTH FOUNDATION**

MODERATOR

ABOUT PBH



OUR PURPOSE

The Produce for Better Health Foundation (PBH), a 501(c)3, is the only national non-profit organization 100% dedicated to helping people live happier, healthier lives by eating and enjoying more fruits and vegetables, in every form, each and every day.

PBH, along with its strategic partners, will elevate new fruit and vegetable consumption behaviors as a national priority – *accelerating growth and serving the public good.*

THE AWARD-WINNING HAVE A PLANT® MOVEMENT REACHES MILLIONS

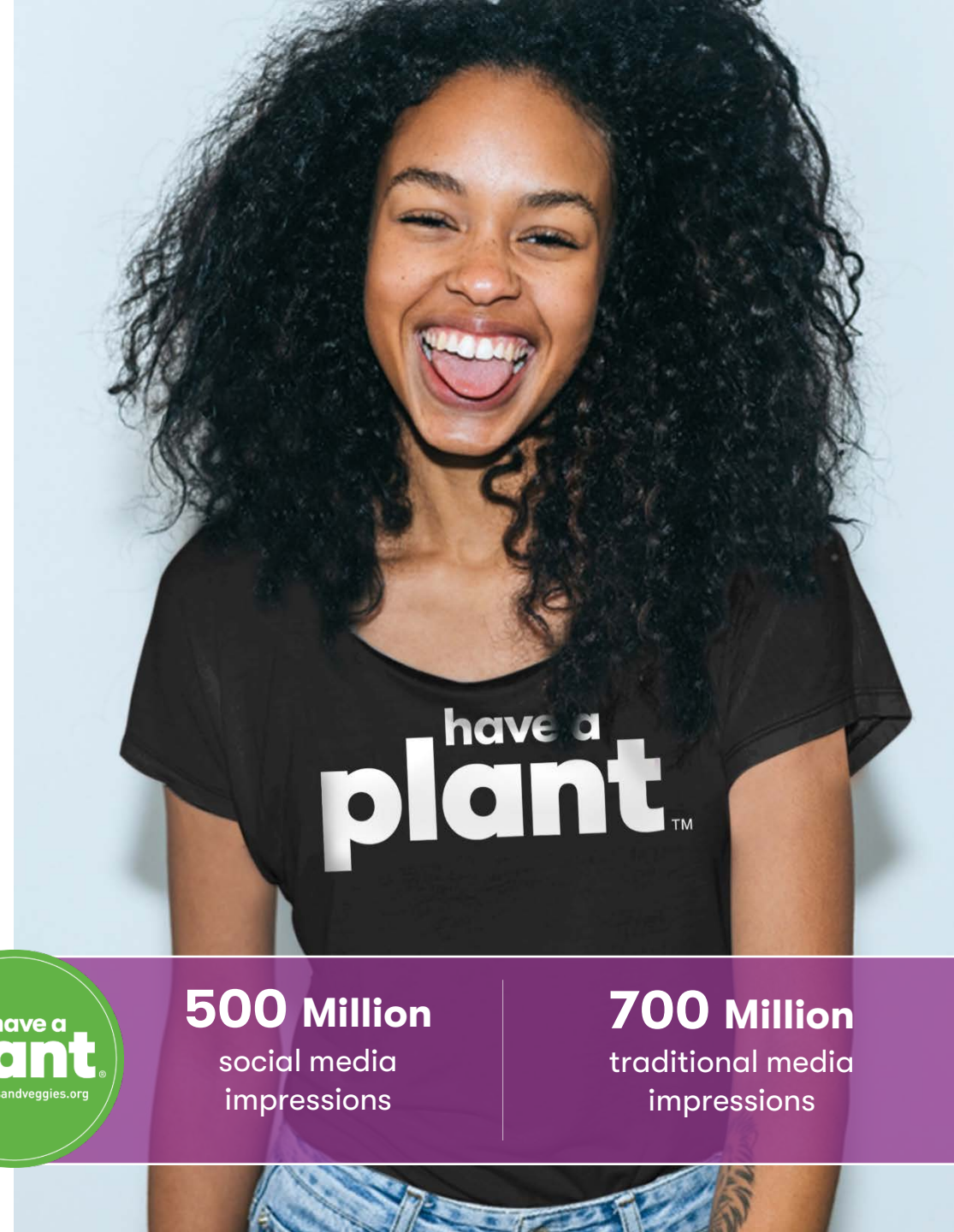
The award-winning **Have A Plant® Movement** is a way to inspire lasting behavior change by tapping into the emotional connection consumers have to the fruit and vegetable eating experience.

PBH is an undeniable resource for health & wellness professionals, given its trusted third-party credibility, breadth of nutrition and behavioral research, and strong consumer, influencer and industry reach.



500 Million
social media
impressions

700 Million
traditional media
impressions



Have a Plant®: The Plant-Forward Eating Guide

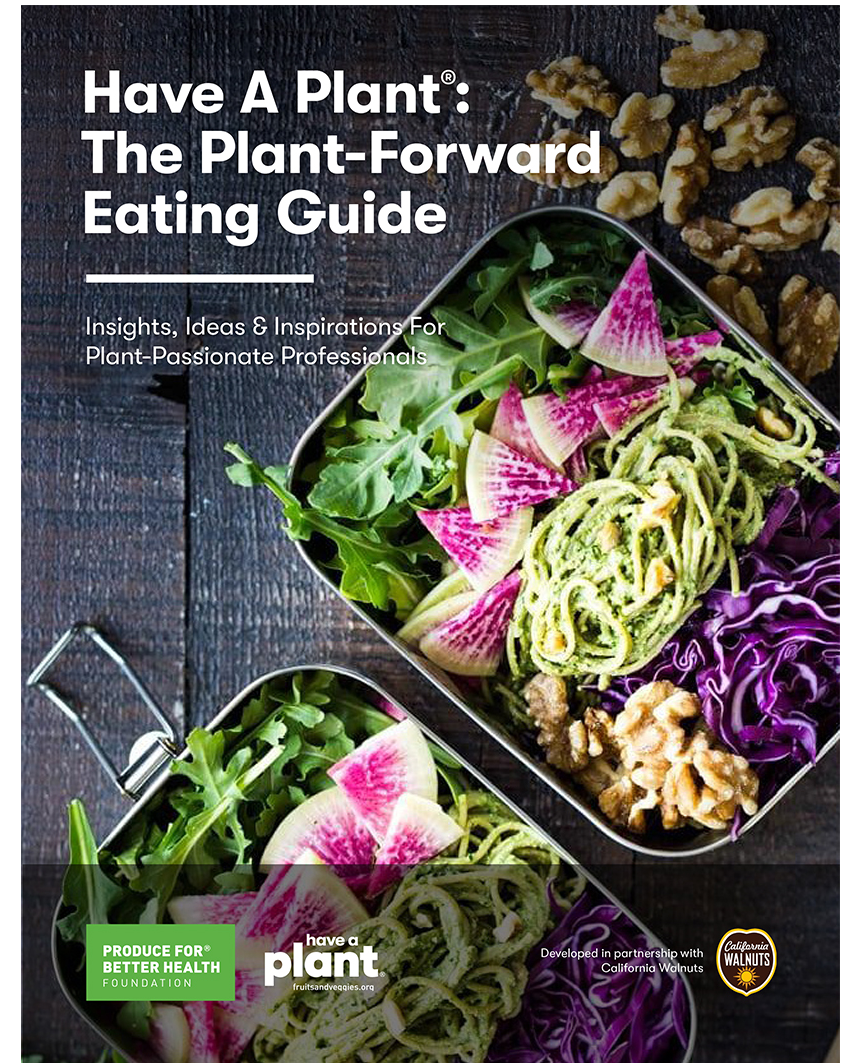
*Insights, Ideas & Inspirations for
Plant-Passionate Professionals*

Find the guide at:

www.fruitsandveggies.org/plantforwardguide

Turnkey resources are also available to put
your plans into action at:

www.fruitsandveggies.org/plantforwardtoolkit



The 2020 PBH State Of The Plate Research Toolkit Provides Health & Wellness Professionals With Helpful Resources.

PUBLIC TOOLKIT

PBH State Of The Plate Research Toolkit with executive summary, key messages, consumer marketing and social media assets as well as activation ideas

[fruitsandveggies.org/
stateoftheplatetoolkit](https://fruitsandveggies.org/stateoftheplatetoolkit)

Fruits & Veggies

Stories

Recipes

Expert Advice

State Of The Plate

PBH[®]

FOUNDATION

STATE OF THE PLATE

2020 PBH State Of The Plate Toolkit

The results are in. As a society, we are chronic underachievers at eating our fruits and veggies and, subsequently, we are short-changing the health and well-being of generations of Americans. In 2020 PBH commissioned an update to our trended fruit and vegetable consumption research. Sadly, the news is not as encouraging as we would hope. America's fruit and vegetable consumption continues to erode over time. We must act NOW to reverse this trend.

We owe it to Americans to help them easily eat, enjoy and maybe even love more fruits and vegetable for improved health and happiness. Please use the resources and insights at the links below to join us in making a new era of conscious consumption a reality! #haveaplant

2020 PBH State Of The Plate Executive Summary
Additional access to the PBH 2020 State of the Plate research is exclusive to PBH members and [Lead The Change](#) supporters. Send us an [email](#) to request access.

Key Messages & Supporting Data Points
[\[pdf\]](#) [\[docx\]](#)

Frequently Asked Questions

Sample Social Media Posts
[\[pdf\]](#) [\[docx\]](#)

Digital & Social Media Graphics

View Official 2020 PBH State of the Plate Press Release

Sample Media Pitch
[\[pdf\]](#) [\[docx\]](#)

Activation Ideas
[\[pdf\]](#) [\[docx\]](#)

Solutions To Help Americans Easily Enjoy More Fruits & Vegetables

Start With Fruits & Veggies

Make a habit of eating a fruit or veggie first during at least 1 meal each day.

Have A Plan, Have A Plant[®]

Map your meals and snacks, making fruits and veggies the stars.

Count All Forms

Mix up fresh, frozen, dried, canned and 100% juice.

Make The Doing Easy

Keep it simple and pair 1 more fruit or vegetable with a fave food each day.

Hit Repeat

Consistent repetition will turn consciously eating more

IF YOU LIKED IT THEN YOU SHOULD PUT A RING ON IT

PRODUCE FOR[®] BETTER HEALTH FOUNDATION

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Housekeeping



1 CPEU available through the Commission on Dietetic Registration (CDR)

You will receive a link to the certificate of attendance, the webinar recording and PDF of the presentation within 48-72 hours.

Type your questions and/or comments into the Q&A section located at the bottom of your screen at any time during the webinar.



TODAY'S SPEAKER

Dr. Lara Ramdin
Chief Innovation Officer
Dole Sunshine Company

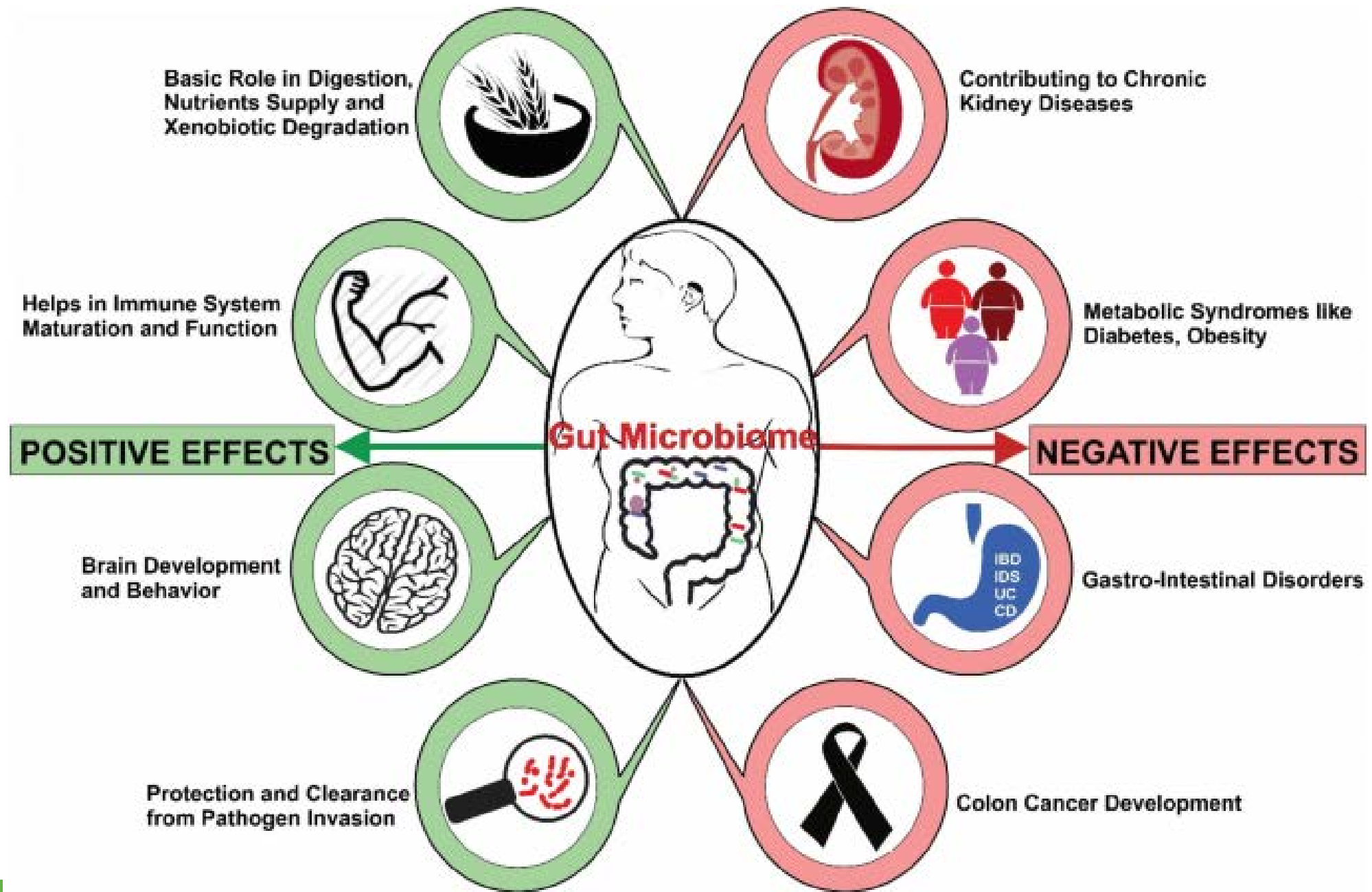
Agenda

- Gut health and it's role in overall well-being
- Plant-based diversity is KING (or Queen 😊)
- Throw away the calorie counter

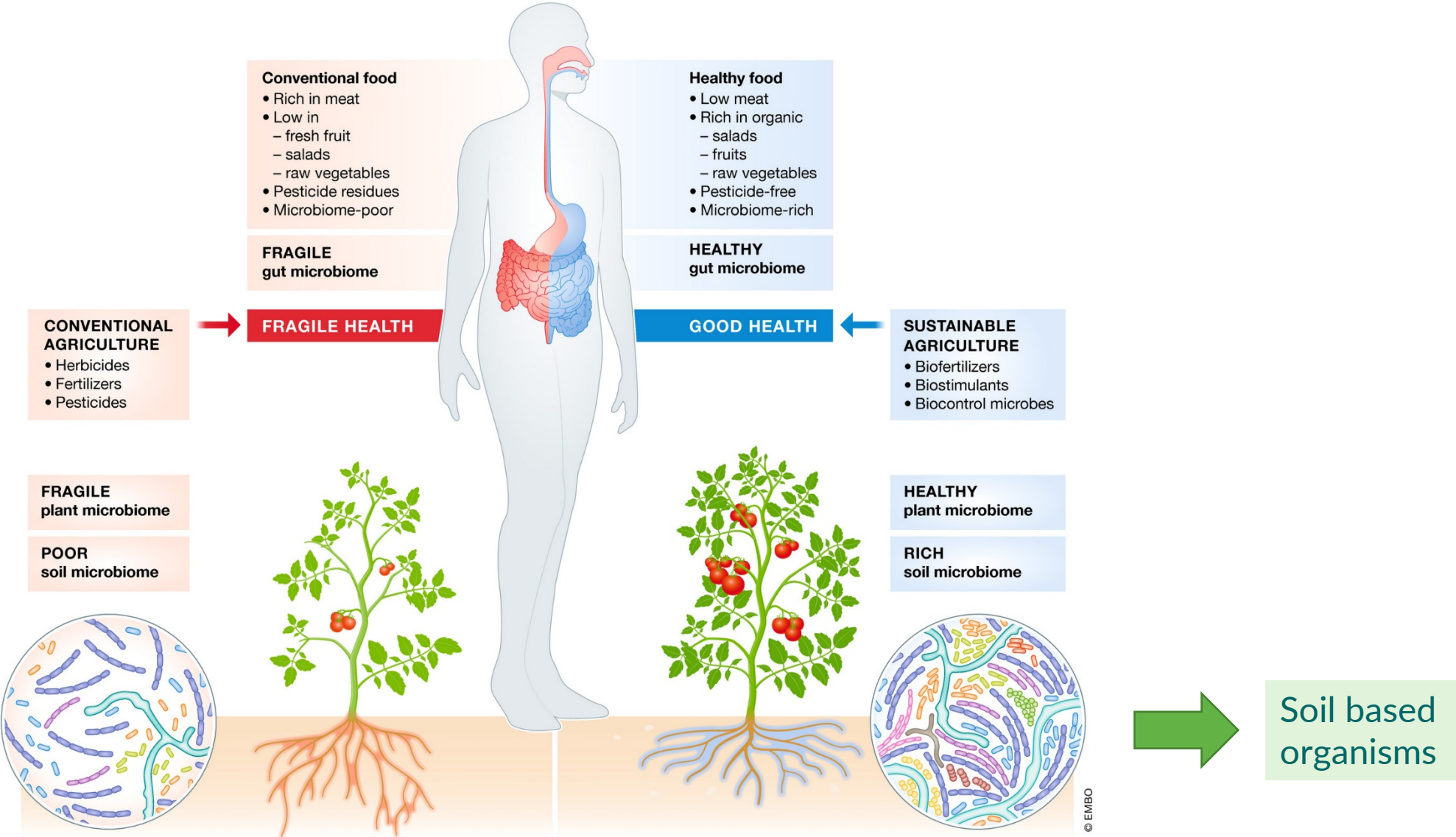
**You can't
change your
genes,
but you can
modify your
microbiome**

What is the microbiome ?

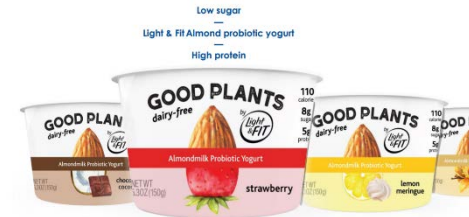
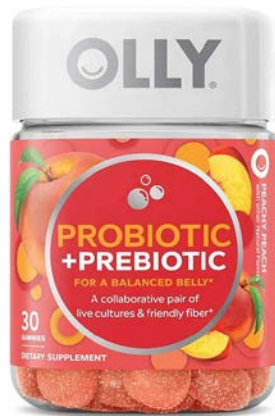




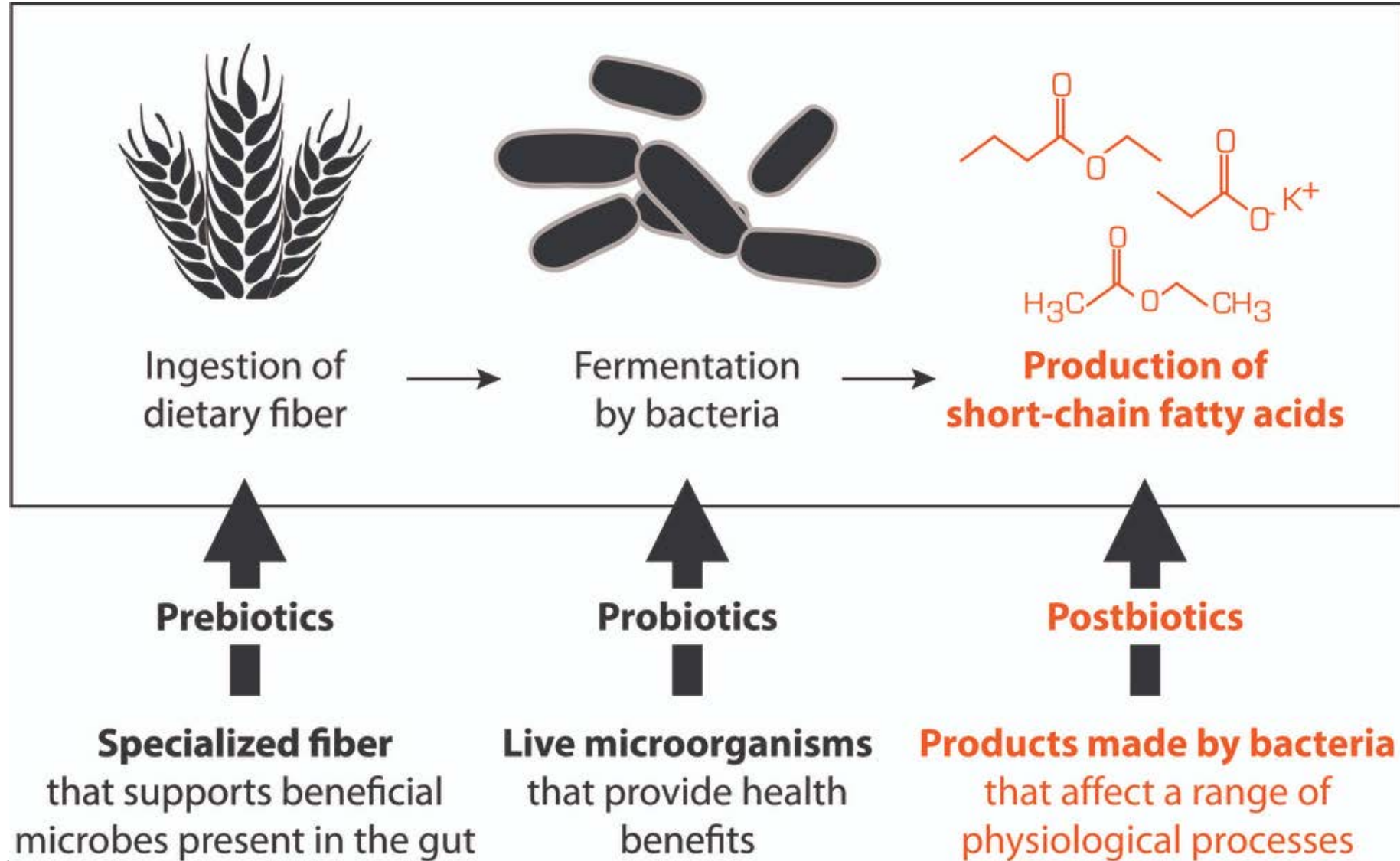
Good gut health starts...in the ground...



Gut-health positive foods growing in popularity



A word on postbiotics



Consumer behaviors are shifting

MACRO CONSUMERS' BEHAVIOURAL SHIFTS



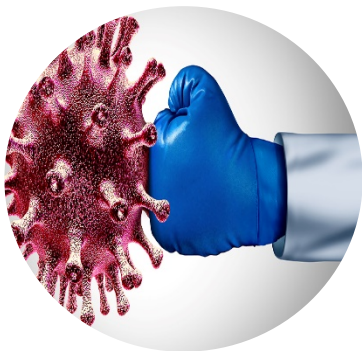
Holistic Approaches/
Desire to better body
& mind connection
Health spans vs Life spans



Personalized Nutrition
High Motivation to
Achieve personal health &
wellness goals



Self Care & Comfort
Through Permissible
Indulgence



Pro Active and ever-
growing concern on
Immunity

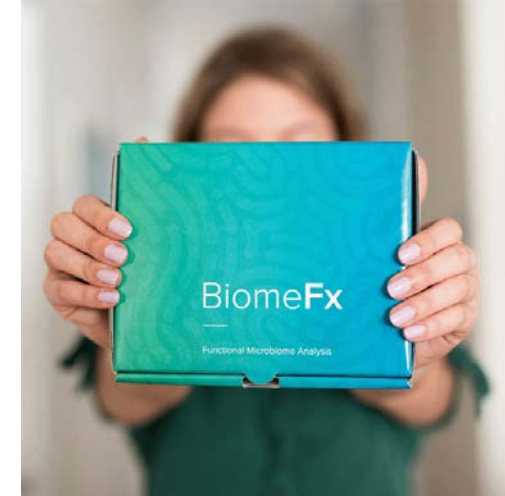


Conscious Buyers
Good for All

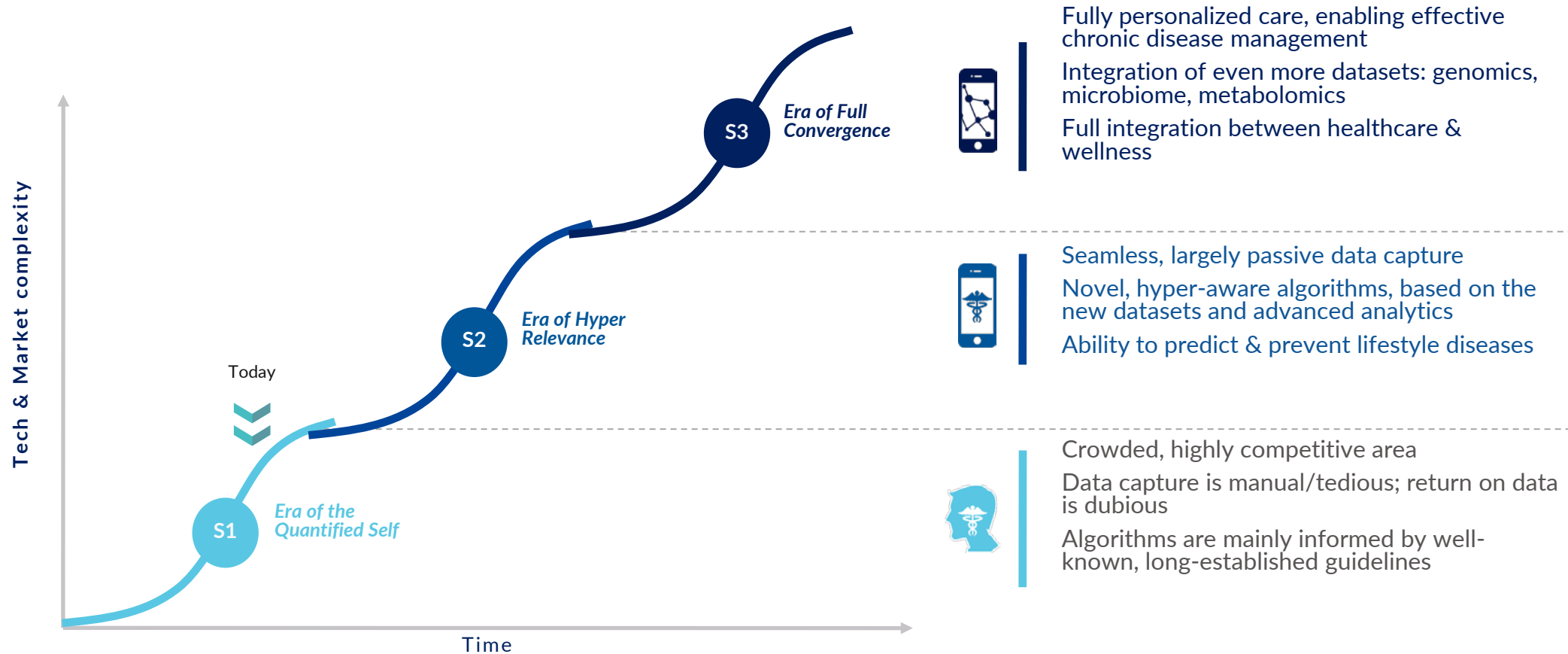


Desire for
Functionality
Additional Benefits

Consumers are taking charge of their own health through personalization



The future is now: personalization & digital nutrition/e-health is evolving fast – it's a when not an if



The future is now: a burgeoning nutrition, health and wellness market is real

SMALL WORLD: 20+ STARTUPS TARGETING THE MICROBIOME

ORAL HEALTH

C3J Therapeutics

SKIN DISEASE

NAKED BIOME™
 azitra Xyrocrobe THERAPEUTICS INC.

INTESTINAL HEALTH

SYMBIOTIC HEALTH
 ELIGO BIOSCIENCE Rebiotix™ Microbiota Restoration Therapy
 enterome
 VEDANTA BIOSCIENCES MaaT Microbiota as a Therapy
 SECOND GENOME THE MICROBIOME COMPANY

DRUG DELIVERY

BLUE TURTLE BIO

DIETARY SUPPLEMENTS

TargEdys ISO Thrive
 MicroBiome therapeutics Evolve BioSystems™

GENOMICS

uBiome EPIBIOME Precision Microbiome Engineering
 锐翌基因 REALGENE Shoreline Biome COSMOSID®
 MICROBIOME INSIGHTS METHUOGEN

CLINICAL DIAGNOSTICS

ART PRED

CBINSIGHTS

FITNESS TECH MARKET MAP

WEARABLES & SMART CLOTHING

huami Vibrodo VALENCELL PHAZON cercacor
 LEOMO ATLAS SPT
 sensio LUMO MOO spry STZ TURINGSENSE
 HEXO SKIN Sensifree iICO ibong HEALBE signal
 ATHOS MOTIV BOLT MOOV Xenoma

COMMUNITY, CONTENT & REWARDS

doonya FiNC fitternity EFLOSPORTS
 KROWD FIT STRAVA BURNALONG
 BOLLYX WE TRAIN iFIT PFI

3D BODY SCANNING

FIT3D SKULPT BODY LABS
 NAKED

GENOMICS

FITNESS GENES ATHLETIGEN AthGene

FITNESS SOFTWARE

virtuagym KINDUCT VINT
 h2 wellness FT GYMTRACK Motionsoft
 Pike13 ZENREZ PerfectGym
 Netpulse Glofox amSTATZ RHINOCO

ON-DEMAND & SUBSCRIPTIONS

gym MOVEWITH GAIN FITNESS SWORKIT
 VOLTATHLETICS Gymliib 8fit GLANAPASS KEIT
 Aaptiv HANDSTAND Y C K
 FLY FIND TRAINER FITWELL M K
 dibs REBEL FitnessCollection LIFT

NUTRITION & WEIGHT MANAGEMENT

HealthifyMe trimino VITA MOJO
 JUICE SO GOOD Lose It! lifeuels
 foodspring REVERE KNOW

APPAREL BRANDS

Outdoor Voices GRACED BY GRIT RHONE
 BANDIER HYLETE VIE ACTIVE
 VIVOBAREFOOT CARBON 38

ENTERPRISE FITNESS

nuvita WELLBEATS STIR
 peerfit MACHFIT

CBINSIGHTS

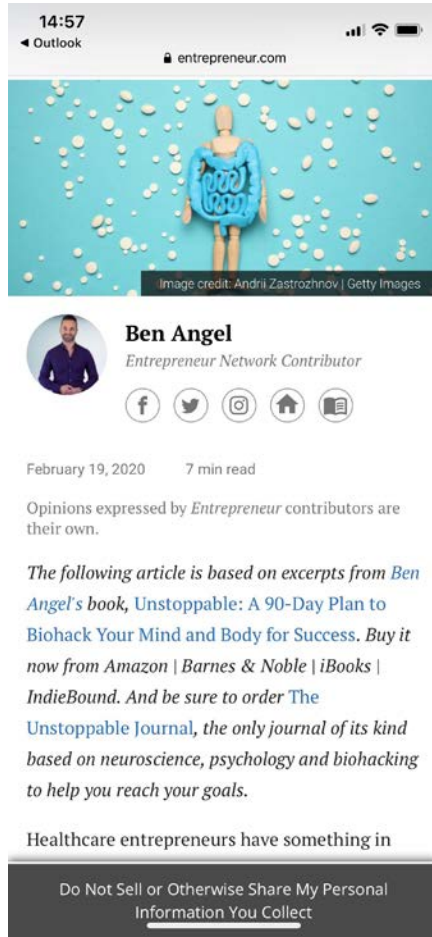


Harnessing the power of plant-based nutrition is central to overall well-being

- The American Gut Research Project gathered microbiome samples from 10,000 people (UK&US) and found those who eat around **30 different plants** / week have a **greater gut microbial diversity** than those who just eat ten.
- Unsurprisingly, the microbial diversity from recent antibiotic takers was drastically reduced
- Two distinct Western populations contributed to the study - significant differences in the diversity of the samples were detected; People in the UK seemed to harbor a more diverse collection of microbes
- The link between the composition of the microbiome and people with depression was confirmed. The samples provided, proved to be consistent in the US and UK populations. This shows that the microbiome and disease strongly influence each other, independent of the environment the person lives in.

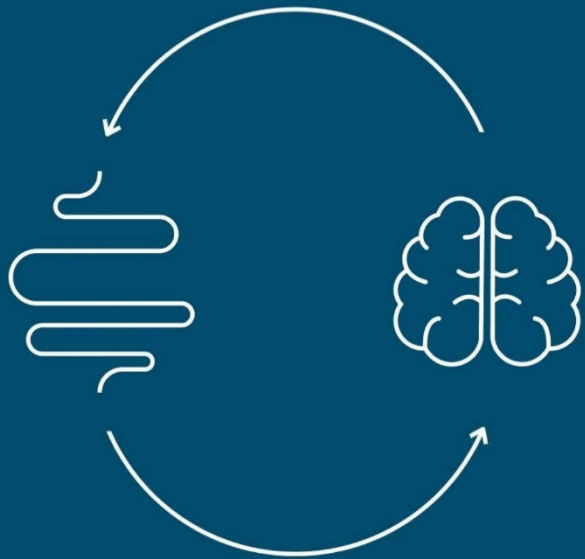


Plant-based nutrition - proven to be the most influential factor on the health and diversity of the microbiome

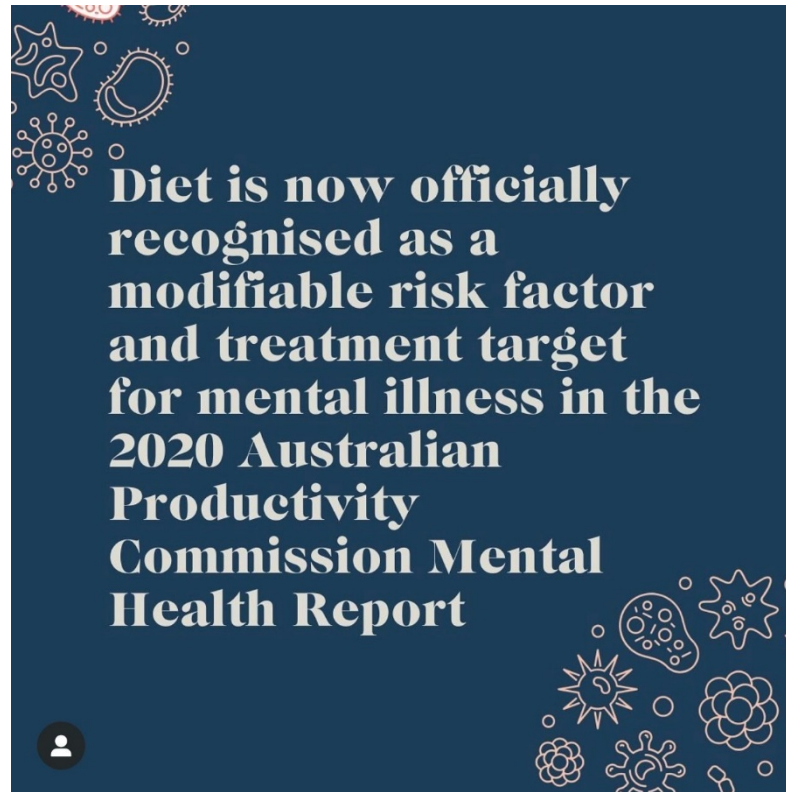


Plant-based nutrition is key to nurturing the gut brain axis

So what is the gut brain axis?



Diet is now officially recognised as a modifiable risk factor and treatment target for mental illness in the 2020 Australian Productivity Commission Mental Health Report



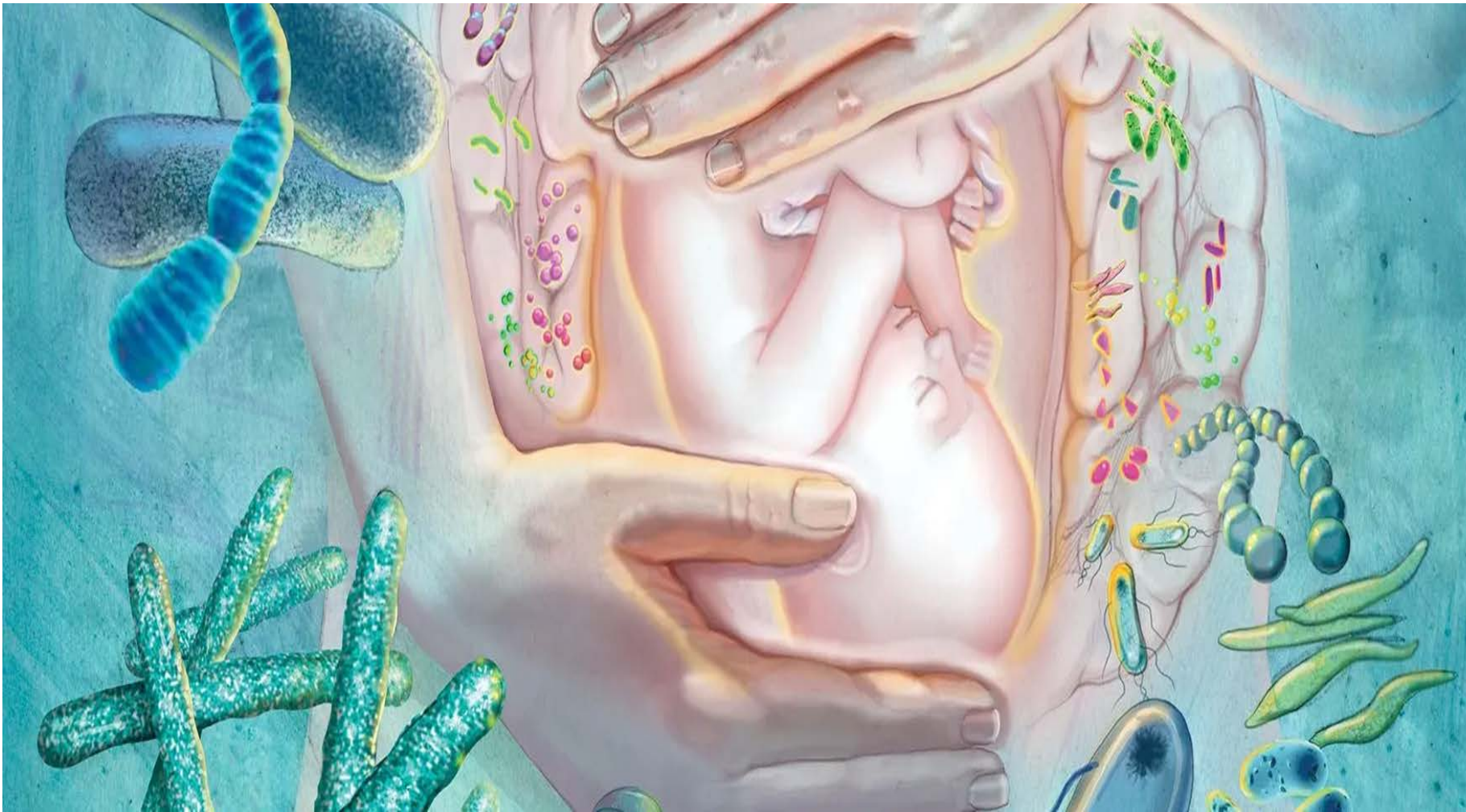
This panel features a dark blue background with white line-art icons of various microbes (bacteria, viruses, fungi) and a brain. The text is in a bold, white, sans-serif font. A small white person icon is located in the bottom left corner.

*Depression.
Can
our microbes
help?*



The text is overlaid on a photograph of a misty, foggy forest with bare trees. The text is in a white, serif font.

The influence of the maternal microbiome

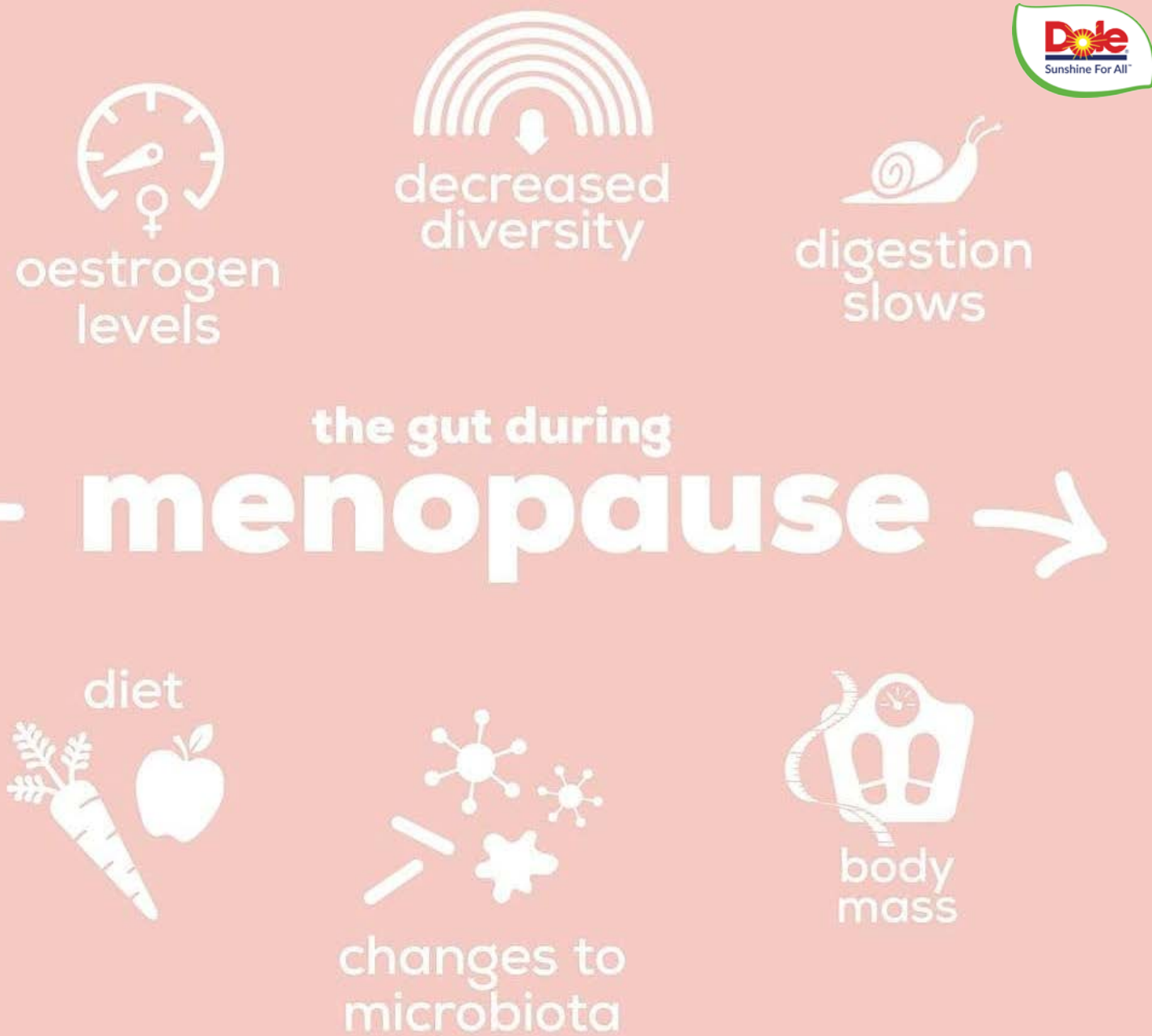


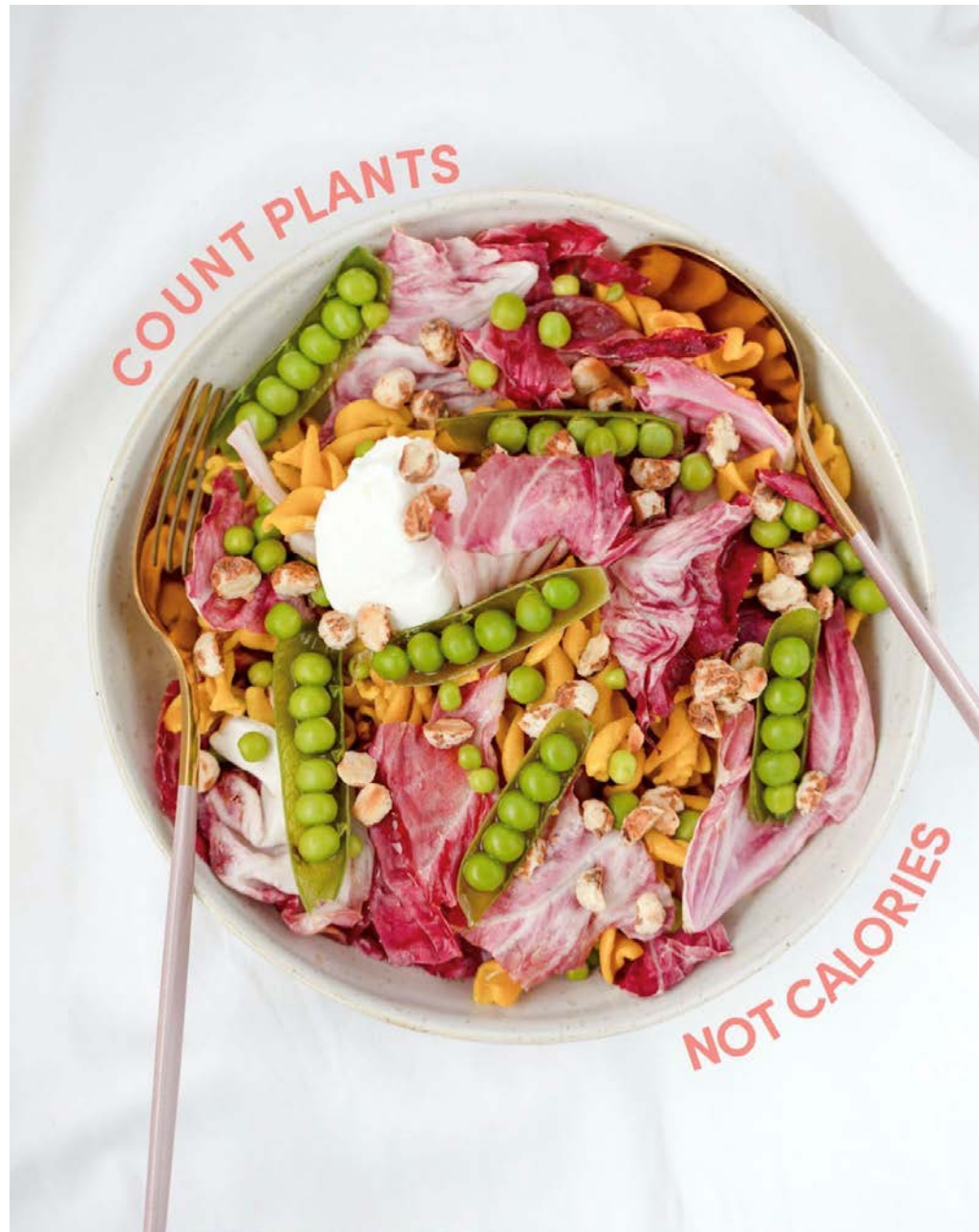
“The maternal microbiota is not a one-trick pony; it does more to shape the offspring’s immune system than induce the production of antibodies that are shared with the newborn. By breaking down the food we eat, and molecules secreted by other resident microbes, intestinal microbes produce a wealth of metabolites with wide-ranging immune-modulatory functions. At least some of these are passed from parent to child during gestation and breastfeeding”

Menopause and the microbiome

- During and post menopause, women experience a decline in oestrogen levels, which along with the normal ageing process alters the gut microbiome and reduces not only its diversity, but also that of the **estrobolome**.
- As we age our hormone levels change and this can affect our risk for disease, particularly during and after menopause.
- A fall in oestrogen levels is also associated with an increased risk of changes to metabolism, weight gain, cancer (e.g. breast cancer) and other chronic disease states including heart disease and diabetes.

https://www.symprove.com/blogs/community/the-oestrogen-gut-axis-and-menopause#_ednref5





Forget caloric restriction, nurture the microbiome



“The actual caloric content of a meal can deviate 200 percent from the number on the menu”

Spoon-Fed

Myth

Nutritional guidelines and diet plans apply to everyone



Myth

Gluten is dangerous



Myth

Calories accurately measure how fattening a food is



Myth

Exercise will make you thin



Spoon-Fed

Why Almost Everything We've Been Told About Food is Wrong
Tim Spector



Diet is meaningless....if we don't get enough sleep



If you do one thing for your health today, go to bed earlier.

The key findings



Poor sleep quality and later bedtime routines



Lead to raised blood sugar levels

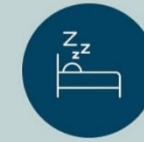


Which are worsened by sugary breakfasts

What does this mean for your health?



Choosing a nutritious breakfast after a poor night's sleep can minimise the impact on your blood sugar



If you go to bed late, sleeping in might not help your blood sugar response



Going to bed earlier is a totally free way to improve your blood sugar response the next day

Tsereteli, N., Vallat, R., Fernandez-Tajes, J. et al. Impact of insufficient sleep on dysregulated blood glucose control under standardised meal conditions. *Diabetologia* (2021).
<https://doi.org/10.1007/s00125-021-05608-y>

“Treat food as medicine that can have as much power to heal as drugs”

“It’s a lot cheaper to put someone on three months of statins [to lower their cholesterol] than to figure out how to get them to eat a healthy diet,” says Eric Rimm, a professor of epidemiology and nutrition at the Harvard T.H. Chan School of Public Health. But drugs are expensive—the average American spends \$1,400 a year on medications—and if people can’t afford them, they go without, increasing the likelihood that they’ll develop complications as they progress to severe stages of their illness, which in turn forces them to require more—and costly—health care.”





Q&A

HELP SUPPORT FRUIT & VEGGIE CONSUMPTION!

If you enjoyed today's Health & Wellness webinar and would like to support our overall mission of increasing fruit and vegetable consumption, we encourage you to make a **tax-deductible donation** today.

As a 501(c)3 non-profit organization, your donation helps us deliver programing, including our monthly health and wellness webinars, actionable research, future-focused education, a comprehensive digital ecosystem, and inspirational resources that helps millions discover the joy of eating fruit and vegetables each and every day. **TOGETHER – with your support – we are creating happier, healthier lives!**

To donate, add the Donations app to Zoom:

<https://pldg.to/RiLcYw>

Or donate with your phone:

Text HAVEAPLANT to 707070 (US only)

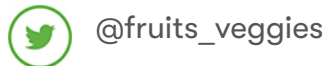
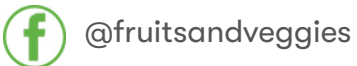
JOIN THE MOVEMENT



have a
plant[®]
fruitsandveggies.org

Show your support by taking and sharing the Have A Plant[®] pledge at fruitsandveggies.org. While you're there, check out the useful resources to equip you with the tools you need to enhance your nutrition knowledge and empower consumers to enjoy more fruits and vegetables every day.

Follow PBH's social channels to keep up to date on all the insights and inspiration. #haveaplant



**SEPTEMBER IS NATIONAL
FRUITS & VEGGIES
MONTH**
#HAVEAPLANTPLEDGE
#HAVEAPLANT #NFVM2022

September is National Fruits & Veggies Month and each year we celebrate Have A Plant[®] during this monumental moment.

2022 is just around the corner, start planning now!

Find inspiration for keeping the celebration going with our 2021 National Fruits & Veggies Month Toolkit!



<https://fruitsandveggies.org/nfvmtoolkit>

A catalog of PBH's past webinars is available at fruitsandveggies.org/expert-professionals/webinars.

Continuing professional education units (CPEU) are available for live and pre-recorded webinars.



THANK YOU

We live at the center of produce,
partnership and passion.

**WE ARE SO HAPPY
YOU'RE WITH US!**

