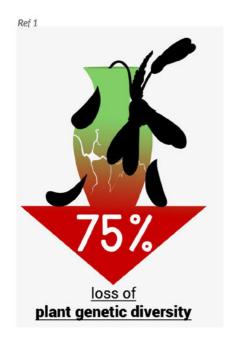
ALLIANCE FOR NATURAL HEALTH INTERNATIONAL

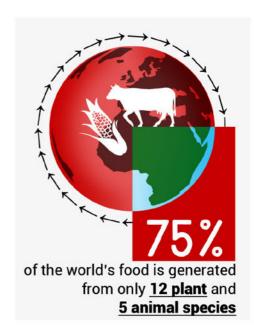
# HUMAN DIETARY DIVERSITY CRISIS

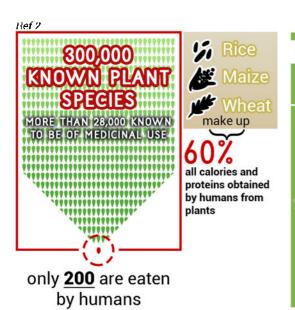
### SINCE THE 1900'S...





livestock breeds at risk of extinction





#### Ref 3 **REDUCTIONS IN NUTRIENTS BETWEEN 1940-1991** Vegetables Fruit Calcium (Ca) -46% Sodium (Na) - 29% Magnesium (Mg) -24% Magnesium (Mg) -16% Copper (Cu) -76% Iron (Fe) -24% Sodium (Na) –49% Copper (Cu) –20% Potassium (K) –19% Potassium (K) -16% Phosphorus (P) +2% Iron (Fe) -27% Calcium (Ca) -16% Zinc (Zn) -27% Phosphorus (P) +9%

### OH, HOW THE TIMES HAVE CHANGED!

Ref 4

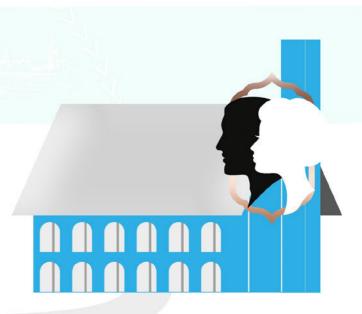
3,000 to 4,500 calories per day (men) and 2,750 to 3,500 (women) mid Victorians, high levels of physical exercise (Mid-Victorian working class men and women consumed between 50% and 100% more calories than we do)

All fruits and vegetables were organically grown, and therefore had higher levels of phytonutrients than the intensively grown crops we eat today

Consumption of fruits and vegetables amounting to 8 to 10 portions per day - today's average at 3.5 portions per day

Victorian diet also contained significantly more nuts, legumes, whole grains and omega three fatty acids than the modern diet

Increased consumption of offal, which has a higher micronutrient density than the skeletal muscle we largely eat today. Plus all important nucleotides, the building blocks of DNA



Ref 5

Decreased omega 3 oils intake

Increased omega 6 oils intake

ncreased risk of heart disease, depression and inflammatory disease

Ref 6

## Diets high in vegetables & fruit have been associated with reduced cancer risk





It's particularly the bitter phytochemicals that are cancer-protective.
Debittering of foods to make them more acceptable to consumers is bad for health

### **INSIDE & OUTSIDE**

ORGANIC MEAT AND MILK

60% higher levels of antioxidants



Ref 7, 8, 9

Omega 3 fatty acids, myristic and palmitic acid



Fat soluble vitamins vitamin E and carotenoids (vitamin A)

Recommended ratio of omega 6:omega 3 is 3:1

Average ratio found in grain fed beef

Ref 10

Average ratio found in grass fed beef

1.53:1

7.65:1

Organic Strawberries

antioxidants

9.7%

more ascorbic acid

10.5%

more phenolics Drganic Soil

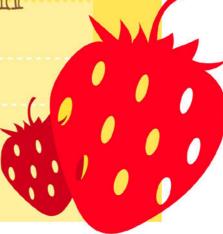
21.6% more carbon

more nitrogen

more microbial biomass



Soil structure





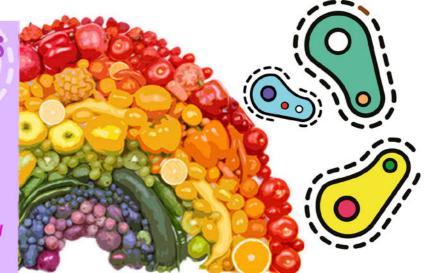
And it's not just food. Diverse phytonutrients in food-based supplements can reduce inflammation and even modulate gene expression just like food!

Ref 13

### THE MORE VEGETABLES AND FRUIT. THE MORE BACTERIAL **DIVERSITY!**

Love your bugs and they'll love you back!

Our microbes are our partners in health, we can't be healthy and happy without them being healthy and *happy...* 



#### IT'S ALL ABOUT THE SUM OF THE PARTS!



Whole fruit = synergistic antioxidant and anticancer effects (the different phytochemicals in plants work together and compliment each other, enhancing their effects)

Microbes are part of the ecosystem within our bodies that we've evolved with. They are integral to our health. Fewer microbes and poor diversity directly translates to poorer health.

Ref 16



α-diversity in human microbiota



BP = BEFORE PRESENT