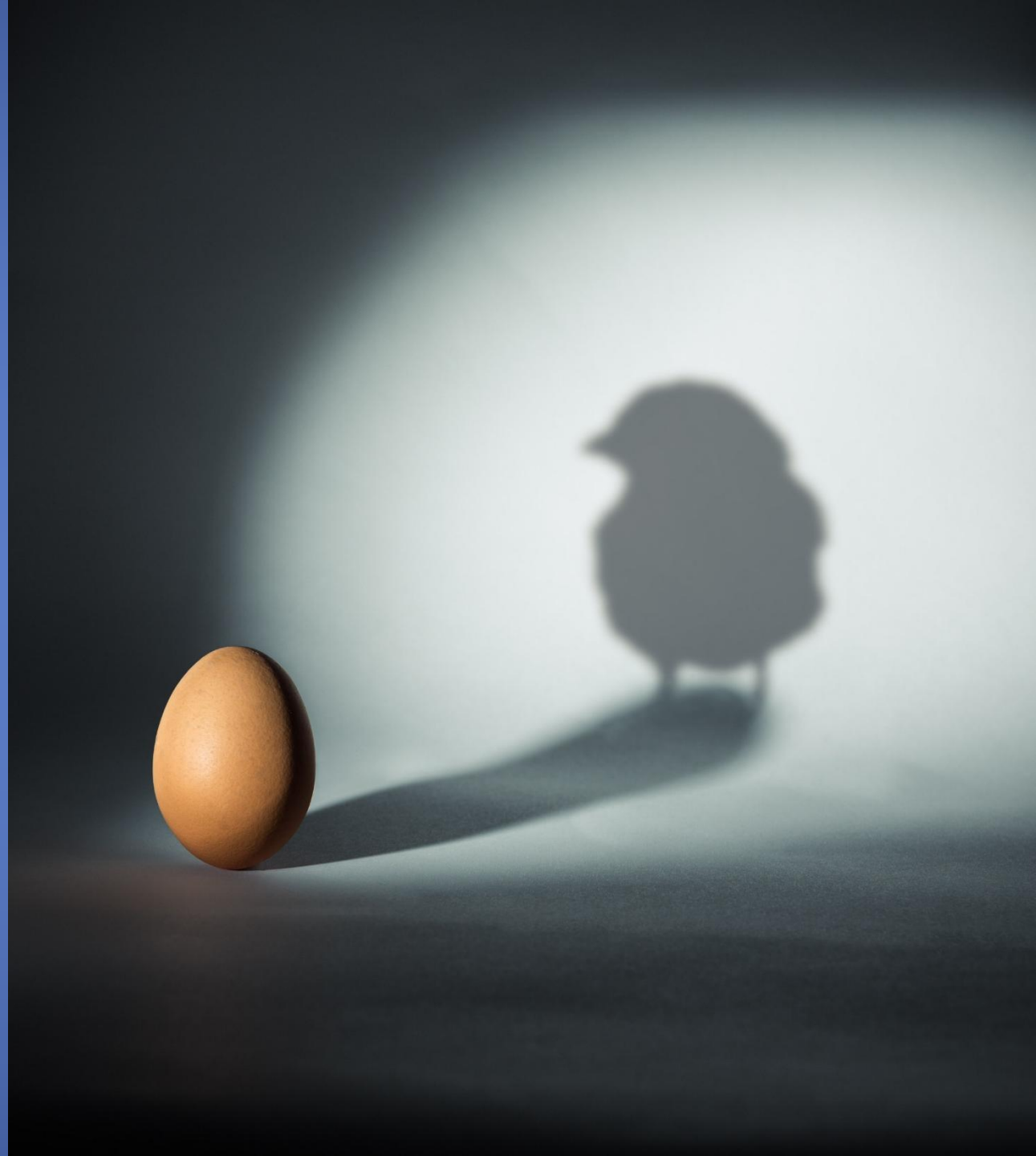
WHAT WAS

WHAT IS

WHAT COULD BE

DAVE WICKER 2026



WHAT WAS

- COBAN ® Introduction in late 1970s
- METHIONINE use in late 1970s

COBAN ®

- Marketed in 1977-1979
- Problems with feed conversion and feed consumption
- One year later, dominated the coccidiastat market

METHIONINE

- Synthesize in 1947
- Marketed for Feed in 1954
- Methionine added to feed at 1-2lbs per ton in 1970s
- Fish meal added to broiler feed at 5-7% of the diet
  - Fish meal shortage in 1978-1979
- Chasing feed conversion ----- 1500 KCAL/LB of feed

WHAT WAS

- The use of Coban ® caused a decrease in feed consumption
- The shortage of fish meal caused a decrease in amino acid levels
- Increasing methionine additions to the feed countered the decrease in feed consumption caused by Coban and resulted in improved performance and feed conversion.

WHAT WAS

- Required years to adopt new products/practices
- Usually facilitated by change/shortages

WHAT IS

- Phytase use in feed
- Precision Nutrition

PHYTASE ENZYMES

- BASF Introduced Phytase over 25 years ago
- ABVISTA conducted many research trials with PHYTASE

PHYTASE ADOPTION

- Very slow ----- High Cost for perceived benefit
- Mad Cow disease and ABF broiler production accelerated use
- Low cost Phytase

PRECISION NUTRITION

- Near Infared assays of feed ingredients
- Protein, Fat, Moisture
- Amino Acids, Digestible Amino Acids, Energy, Fiber, Starch, Reactive Lysine, KOH Solubility.
- Industry is slow to adopt this technology

PRECISION NUTRITION

Soybean Meal Assays for a 30-Day Period

NUTRIENT	AVERAGE	STD DEV	MIN	MAX
CRUDE PROTEIN	45.87	0.339	45.2	46.5
FIBER	3.49	0.19	3.09	3.82
MOISTURE	12.7	0.31	12.2	13.3

SOYBEAN MEAL ASSAYS BY DAY

SAMPLE DATE	CRUDE PROTEIN	SAMPLE DATE	CRUDE PROTEIN
1_1	45.2*	10	46.48
3	46.18	11	46.47
4	45.88	12	46.05
5	45.87	13	46.50
6	45.57*	14	46.0
7	45.53*	15_1	45.60*

SOYBEAN MEAL ASSAYS BY DAY

SAMPLE DATE	CRUDE PROTEIN	SAMPLE DATE	CRUDE PROTEIN
17	46.18	23[1]	45.81
18	46.19	24	45.91
19	45.32*	25	45.60*
20	45.37*		
21	45.58*		

*** Less than Mean – ½ STD**

1 – Weekend delivery

WHAT COULD BE

- Precision Nutrition
  - Teamwork;

    Suppliers, Nutritionist, Purchasing, Feed Mills, Live Operations, Processing, Sales

- Feeding a Nutrient Package ---- Not percent protein or calories of energy

LIMITING FACTORS KNOWLEDGE OF ……

- Quality of ingredients
- Ability to assay ingredients and adjust nutrient packages
- Ability to segregate ingredients and rapidly change formulas
- Formulation restriction is digestible amino acids (not protein) and digestible/available energy minerals and vitamins

NEW METHODS FOR PRECISION PRODUCTION

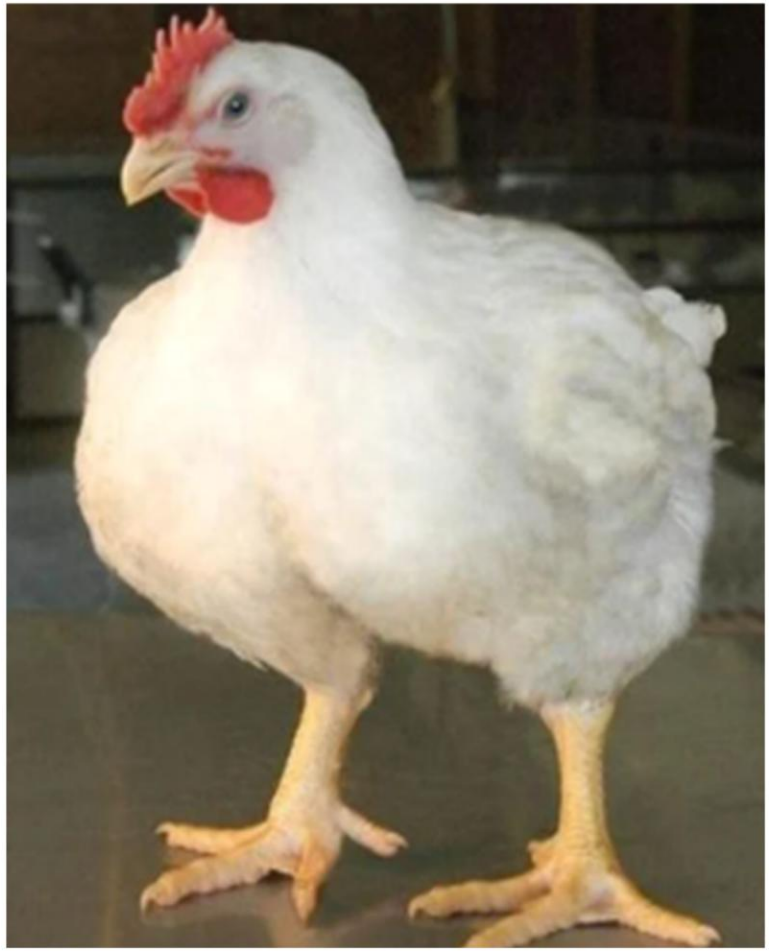
- Blood parameters for health, nutrition status, mycotoxin damage
- Fecal analysis for Coccidia and Salmonella status
- Data Collection
  - Poultry houses – Controllers, Feed bin scales, robotics, cameras, acoustics

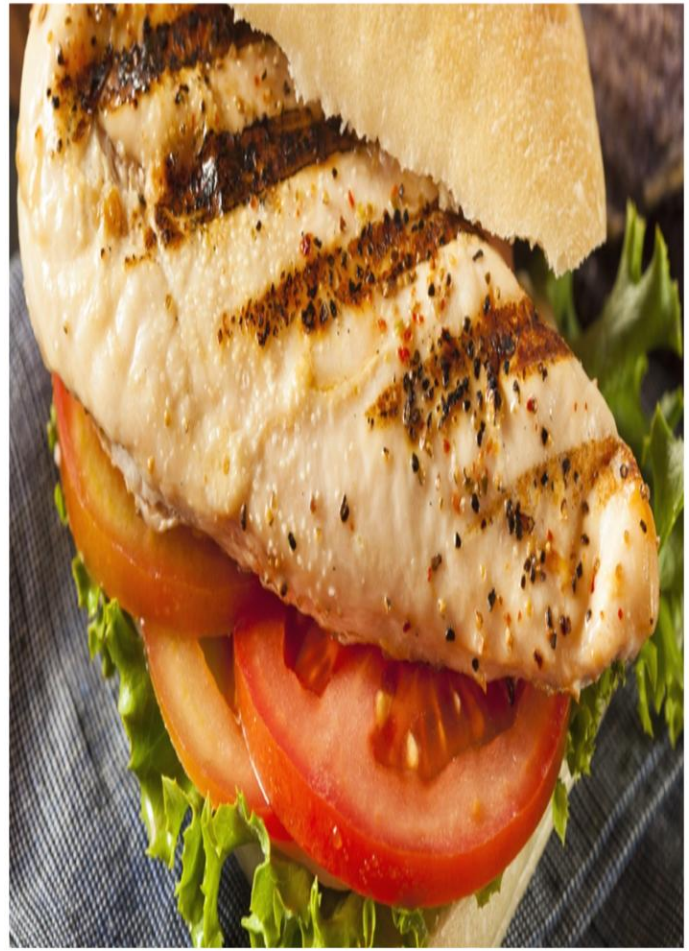
NEW METHODS FOR PRECISION PRODUCTION

- Data Analytics
  - For Poultry Growers, For Live Production, For Processing, For Sales

- Data Analytics For Company Management
  - Predictive modeling from breeders to final product sales
  - Numerous computer programs are in the market.
    - None cover the entire broiler company

WHAT COULD BE





THANK YOU,

DAVID L. WICKER