PASTURE SUMMIT

Michael Murphy
Ireland

New Zealand and Ireland Dairy Industries

- Grass Based – Low Cost
- Seasonal Calving – very rapid calving
- 4.5 – 5.5 lactations per cow
- + 90% of milk production exported
- Must be globally competitive at all times

WHY PASTURE SUMMIT?

- 4.2% of world milk supply from NZ & Ireland
- c 80%-85% from grain based Confinement Systems
- c 10-15% Hybrid Grass/Grain Systems

  (Chile, Argentina, Uruguay, Australia, UK etc)

Only NZ & Ireland live or die based on Pasture based systems

SHOULD WE COOPERATE OR COMPETE?

The relative competitiveness of Grass based systems over time

Versus

Grain based confinement systems is critically important

Maize in USA

1900 - 30 Bushels/acre

2017 - Growing 175 Bushels/acre

Rule of 72

72

3% growth/year

24 years to **double** yield

48 years to **quadruple**

HUGE RESOURCES

$7.5 BILLION

Research pot worldwide

Driving productivity

GRASS PRODUCTIVITY

Being Optimistic!!!

Productivity growing @ 0.2%/year

$\frac{72}{0.2}$ = **360 years** to **double**

And maybe 4-5% of grass reseeded/year

Research resources tiny
(possibly 5% of maize research?)

GRASS SYSTEMS

Grass Systems – Highly competitive Now

But will they be competitive in

10 years?

20 years?

30 years?

40 years?

GRASS SYSTEMS

With very limited research resources

NZ – Ireland need to be very conscious of

increasing the rate of innovation of

Pasture Based Systems

DESIRED OUTCOMES

- A faster rate of innovation via research collaboration between NZ and Ireland
- Crystal clear focus on profitability and competitiveness in NZ & Ireland
- Build trust and co-operation between Ireland and NZ
- Hence the Pasture Summit Conference

WHAT FOCUS IS REQUIRED ON FARM?

Examples of 3 wrong approaches

All driven by a focus on production per cow

WHAT FOCUS IS REQUIRED ON FARM?

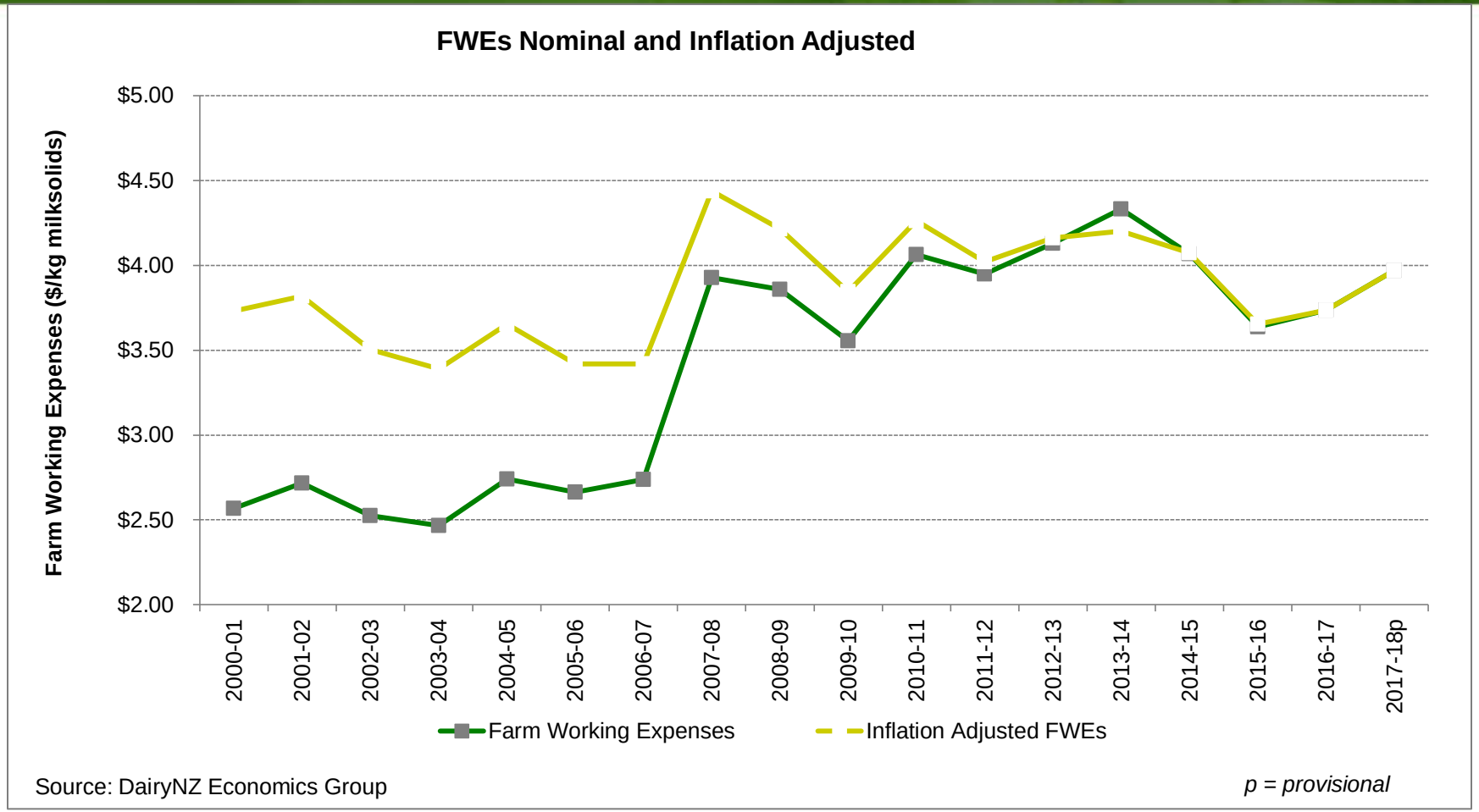
1988 – 1995

Ireland – extensive use of Holland genetics

- Huge hit to cow fertility and profitability
- Cows calving 2021 – back to fertility of 1988

33 wasted years!

FWE NOMINAL & INFLATION ADJUSTED



Source: DairyNZ Economics Group

REPLICATE OR INTENSIFY

Moorepark

Every 10% increase in bought in feed drops profits by $170 NZ dollars per Ha

New Zealand

Every extra dollar in feed costs

Increases total costs by $1.64 Waikato

by $1.77 Canterbury

CORRELATION WITH PROFITS

Low Cost

- 44% Ireland (Moorepark)
- 55% New Zealand (DairyNZ)

Milk solids per ha

- 33% New Zealand & Ireland

Yield per cow

- 5% Ireland
- 17% New Zealand

OPPORTUNITIES

- Clear focus on profitability
- Grow and eat more grass per ha
- Compact calving at the right time
- Good genetics – high fertility
- Longevity 5 to 5.5 lactations per cow
- 90% of herd calving in 6 weeks
- Strong focus on good cost control

EXTRA GRASS EATEN PER HA

- Value NZ & Ireland +$300 (NZ) per ton eaten
- 200 ha farm increases grass eaten from 12 tonnes to 16 tonnes
- **Extra profit**
  - 200 x4 x 300 = $240,000 (NZ) – per year

Even in Missouri the value per extra ton eaten per ha = $300 (NZ) per ha

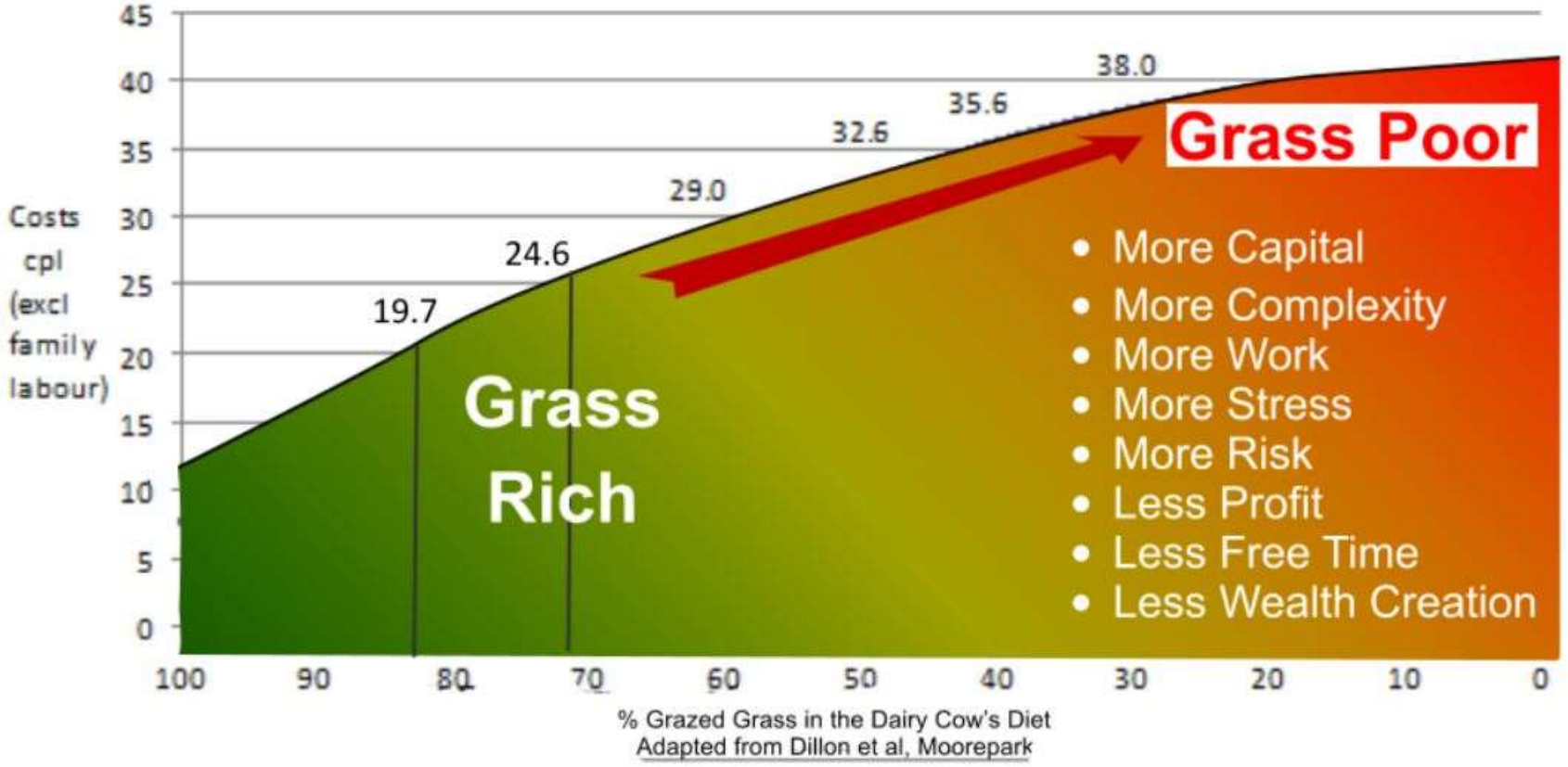
FARM PROFITABILITY

2 Year study of Farm Profitability

- Con Hurley and Michael Murphy

- Ireland
- New Zealand
- Northern Ireland
- Australia

GRASS **RICH** OR GRASS **POOR**?



% Grazed Grass in the Dairy Cow's Diet
Adapted from Dillon et al, Moorepark

CLONAKILTY

HF on Grass	0.81 kgs MS / Kg BW
Xbred on Grass + Clover	1.03 kgs MS / Kg BW

APPROPRIATE REGULATION?

Methane -12 year life

- treated as permanent?

Carbon soak - no credit for high organic matter

- pastoral soils?

Food Vs Oil

- Oil demerits credited to importing country
- Food demerits credited to exporting country?
- New Zealand/Ireland governments need to frame more equitable regulation?

NEW TECHNOLOGY?

Professor Colin Holmes

- 1918 OAD - 50% reduction/cow
- 2018 OAD - 18% reduction/cow
- 2040 OAD - ?

Possibly 5 - 8% reduction if 15-20 years of intensive selection

Would transform economics/attractiveness of pastoral dairy farming

CHALLENGE ‘non milk’ MILKS

Non dairy milks

(Almond, Coconut, Soya, Rice, Pea, etc)

- Now 3% of milk solids sold worldwide
- Now 12% of fluid milk market globally

Nutritional or health benefits?

- Non existent
- But well marketed and promoted

GRASS FED MILK

- Contains 10 nutrients essential to human health
- Contains 22 other ingredients

May have health benefits now unknown

A GREAT STORY TO TELL

HEALTH BENEFITS

CLA’S

- For heart
- Anti carcinogenic

HEALTH BENEFITS / OMEGA OILS

Grass fed milk

- Ratio of omega 6 to omega 3 = 2.3

HUGE BENEFITS to combat obesity & type 2 diabetes

Grain fed milk

- Ratio of omega 6 to omega 3 = 5.8

Very low health benefits

Addition of fish oil?

IRELAND & NEW ZEALAND
The Future

We have a **GREAT story to tell** but we need to

TELL IT BETTER!

- Need close cooperation to drive faster innovation on farm and ex farm
- Keep a strong focus on Profitability – not production
- Our future is in our own hands

Plenty of reason for cautious optimism

If we follow the correct strategies

Thank You