

## DPSL Farm Tutorial Workshop 2023/2024 Content Overview

### Day 1:

#### **The Fundamentals of Dairy Production**

CSR  
Liveweight Base

#### **Energy Measurement and Understanding ME**

Energy Requirements of Cows

#### **Understanding the Cow**

The Origin of Cows

#### **Body Condition**

Dairy Cow Condition Scoring  
DairyNZ Condition Scoring Made Easy  
Condition Scoring Chart  
Wormed Simple Condition Scoring for Cattle  
Body Condition and Dairy Cows

#### **Managing In Calf Heifers**

Returning In Calf Heifers  
Heifer Mastitis

#### **Definitions - Farm Systems - Abbreviations**

### Day 2:

#### **Carbohydrate Digestion**

Fibre (Complex Carbohydrate) in the Dairy Cow Diet

#### **Cow Comfort**

Dairy Shed Design  
Milking Time – Cow Comfort & Productivity  
In Shed Feed Systems  
Feed Pads  
Evaluation of Viability of Feed Pad Construction & Use  
Paddock Feeding, including adlib Troughs and Feeders  
Feed Wastage

#### **Late Lactation and Dry Off**

##### **The Dry Cow**

Managing Dry Cows for the Next Lactation  
Dry Cows and Mud  
Winter Crops

#### **Cow Housing**

Cow Housing – The Basics  
Freestall Barns  
Understanding Compost Barns

### Day 3:

#### **The Transition Cow – Precalving**

Overview of Metabolic Disease  
Recent Research on Hypocalcemia & Immunity

#### **The Transition Cow – Feeding the Precalving Cow**

#### **The Transition Cow – Calcium Metabolism**

The Transition Period – Preventing Milk Fever & More

#### **Calf Rearing and Management**

Basic Management of The Newborn Calf  
Great Calves for Great Heifers

#### **Calf Rearing and Management - Problems, CMR, Meal**

#### **The Transition Cow - Feed and Additive Options**

#### **Case Studies**

#### **Animate & Zeolite Trials**

Day 4:

**Protein Digestion – Nitrogen Metabolism**

Simplifying Protein Metabolism & Milk Urea

**The Transition Cow – Calving to First Milking**

Management of Calving & Newly Calved Cow  
Calcium

**The Transition Cow – The Fresh Colostrum Cow**

The Fresh Cow  
Milking Colostrum Cows OAD  
Energy Sources For Fresh Cows

**The Transition Cow – Problems**

**Growing Great Heifers**

Replacement Growth Targets

**Exercises**

Day 5:

**Energy Deficiency Disease**

Energy Deficit Conditions

**Ketosis : Causes and Biochemistry**

Diseases of Dairy Animals - Ketosis  
Diseases of Dairy Animals – Pregnancy Toxaemia

**Ketosis : Clinical Signs, Outcomes and Diagnosis**

Monitoring Ketosis in Lactation Dairy Cows

**Ketosis : Treatment and Prevention, inc. Liver Function**

The Cow in Equilibrium part 1 & 2

**Dry Matter Intake**

Dry Matter Intake  
Feed Efficiency

**Substitution**

**Calculating DMI and CSR Exercise**

Day 6:

**Reproduction: The Big Picture**

Feeding For Breeding – the Basics

**Reproduction: Hormones and Pregnancy, High Production and The RED Cow**

Reproduction, High Production and R.E.D

**Reproduction: Management and Nutrition, Heat Detection, Successful Reproduction**

Detection of Oestrus in Dairy Cows  
Successful Reproduction

**Reproduction: Conclusion, Definitions & Targets**

Successful Mating is a Complex Business

**Mineral & Vitamin Supplementation:**

General Principals  
Macrominerals

Day 7:

**Rumen Function: Review**

**Rumen Dysfunction: What & Why**

**Rumen Dysfunction: Signs, Outcomes, and Diagnosis**

Rumen Acidosis Strategies

**Rumen Dysfunction: Prevention and Treatment**

Feeding to Minimise Acidosis  
Ruminal Acidosis Soda Grain and Caustic Soda

**Water**

**Fibre for Dairy Cows**

Fibre Requirements of Dairy Cows Mertens

**Rumen Dysfunction: Associated Problems**

L.D.A. or Left Displaced Abomasum

Day 8:

**What Is Fat?**

Palm Kernel Expeller meal  
Protected Fats & Higher Energy Density

**Fat Digestion and Metabolism**

Lipids & Longevity

**Milk Fat Production**

Understanding the Regulation of Milk Fat Synthesis

**Heat Stress and Hot Cows – Cause and Effect**

Hot Cows  
Summer Feed for Milking Cows  
Summer Production

**Heat Stress and Hot Cows – Prevention**

Heat Effects Part 1 ~ 4  
Heat Stress ~ Summary of Recent Worldwide Studies

**Milk Fat Manipulating FEI**

Day 9:

**Milk Volume**

**Milk Protein**

**Milk Fat**

**Milk Production Problems**

**Mineral – Trace Mineral**

**Mineral – Vitamins**

**Summer Autumn Calving**

**Getting the Most from Your Silage – Trish Lewis**

Reducing the cost of silage  
Inoculant Selection  
Inoculant Selection – Answers for Sil-All  
Assessing DM of Silage  
Maize Silage Chop Length

Day 10:

**Farm Systems Comparison & Profitability**

Farm Systems Profitability  
Higher Input Systems are More Profitable  
IFAC – Pathways to Profit

**Ration Formulation**

What Can I Afford to Pay for Feed?

**Consequences of Death and Disease**

The Role of Farm Animal Health in Dairy Profitability  
Financial Implications of Herd Wastage  
Profit Limiting Diseases  
The Economics of Infectious & Production Diseases in Dairy Herds

**Exercises**

Explanatory Notes and Calculations

**Non Pasture Feeds**