# Food Drying Technology

CSIRO, AUSTRALIA (WERRIBEE) | 1 - 2 MARCH 2022

Program may be subject to minor changes

#### **DAY ONE**

Tuesday, 1 March 2022



8:30 Introduction & Welcome

**Dried Products & Their Quality** 

**Basic Drying Theory** 

**Morning Break** 

Drying Systems Used in the Food Industry

Water Activity: Basic Concepts & Sorption / Desorption Isotherms,

Methods Of Measurement

12:00 Lunch

Lab Demonstration: Water Activity / Moisture Content / Dvs

Water Activity: Relevance to Food Stability & the Drying Process

Principles of Mass & Energy Balances as Applied to Drying Processes

Exercise: Using Mass & Energy Balance Techniques to Analyse Simple Drying System

**Afternoon Break** 

**Principles of Psychrometrics** 

Tracing a Drying Process on a Psychrometric Chart

Mass & Energy Balance Applied to a More Complex Drying System - A Case Study

4:30 Close Day One





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#### **DAY TWO**

Wednesday, 2 March 2022



#### 8:30 Start of Day Two

Modelling the Drying Curve

Practical Measurement/Modelling of Product Drying Curve & How it Can Be Used

The Use of Dimensional Analysis to Optimise a Drying Process (An Industry Case Study)

### **Morning Break**

**Specialised Drying Systems** 

Pilot Plant Visit

#### 12:15 Lunch

## Option 1

Design And Specification Of Drying Systems Gordon Young, Foodstream Pty Ltd

Case Studies Of A Range Of Drying Technologies

### Option 2

Spray Drying Technology Darren Gardiner, CSIRO

#### Afternoon Break

Improving Efficiency of Established Drying Processes – A Case Study

#### 17:30 Course Close

