

Food drying technology short course

Program¹

Dennis Forte and Associates. Pty. Ltd

Tuesday 25th February 2025 – Day 1

Dennis Forte, Clextral innovative drying technology Gaetan Charley, Clextral Pacific 12.15 pm			
Dennis Forte & Assoc Dennis Forte & Assoc Dennis Forte, Clextral innovative drying technology Gaetan Charley, Clextral Pacific 12.45 pm Water activity: relevance to food stability and the drying process 1.30 pm Principles of mass and energy balances as applied to drying processes (Exercise: Using mass and energy balance techniques to analyse simple drying system) 2.30 pm Afternoon break 2.45 pm Principles of psychrometrics, tracing a drying process on a psychrometric chart Dennis Forte, Dennis For	8.30 am	Welcome and introduction	
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Dennis Forte & Assoc 10:00 am Morning Break 10:20 am Basic drying theory Dennis Forte, Dennis Forte & Assoc 11:10 am Water activity: Basic concepts & sorption/desorption isotherms, methods of measurement Dennis Forte, Clextral pacific 12:00 pm Clextral innovative drying technology Gaetan Charley, Clextral Pacific 12:45 pm Water activity: relevance to food stability and the drying process 1.30 pm Principles of mass and energy balances as applied to drying processes (Exercise: Using mass and energy balance techniques to analyse simple drying system) 2:30 pm Afternoon break 2.45 pm Principles of psychrometrics, tracing a drying process on a psychrometric chart Dennis Forte,			Dennis Forte & Assoc
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Dennis Forte & Assoc	4.15 pm	Dryer Performance Comparison: Mass & Energy Balance	Dennis Forte,
4.45 pm Lab Demonstration Henry/ Danyang			Dennis Forte & Assoc
	4.45 pm		Henry/ Danyang
End of day 1		End of day 1	

^{1.} The following program may be subject to minor change

Wednesday 26th February 2024 – Day 2

8.15 am	Start of day 2		
8.15 am	Modelling the drying curve (practical	a curvo and	Dennis Forte, Dennis Forte & Assoc
	measurement/modelling of product dryin how it can be used)	g curve and	Definis Force & Assoc
9.00 am	The use of dimensional analysis to optimise a	drying process	Dennis Forte,
	(an industry case study)		Dennis Forte & Assoc
09.45 am	Morning break		
10.05 am	Specialised drying systems		Darren Gardiner and Henry Sabarez, CSIRO
11:00 am	Pilot plant visit		
12.15 pm	Lunch		
12:45 pm	Option 1:	Option 2:	
12:45 pm	Case studies of a range of drying	Option 2: Spray drying t	echnology
12:45 pm	Case studies of a range of drying technologies (fluidised bed, heat	•	<u> </u>
12:45 pm	Case studies of a range of drying	Spray drying t	<u> </u>
12:45 pm 2:30 pm	Case studies of a range of drying technologies (fluidised bed, heat pump, vacuum/freeze) Dennis Forte, Dennis Forte & Assoc and	Spray drying t	<u> </u>
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2:30 pm	Case studies of a range of drying technologies (fluidised bed, heat pump, vacuum/freeze) Dennis Forte, Dennis Forte & Assoc and Henry Sabarez, CSIRO Afternoon break	Spray drying t Darren Gardin	ner, CSIRO
2:30 pm	Case studies of a range of drying technologies (fluidised bed, heat pump, vacuum/freeze) Dennis Forte, Dennis Forte & Assoc and Henry Sabarez, CSIRO Afternoon break Improving efficiency of established drying	Spray drying t Darren Gardin	Dennis Forte, Dennis Forte & Assoc
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