

Food Processing - FP

Exam Question 09: Increased Protein Degradation

Lucas Daniel Paz Zuleta, TZS159

MSc student at the University of Copenhagen

Last compiled: 25-03-2025

Link to Git repo.: https://github.com/DanishUnicorn/fp_exam_2025



Question 09

Situation

You are the manager of a medium-sized Danish co-operative dairy plant in Northern Jutland and suspect an increased protein degradation occurring in your milk.

Your task

Map out the reasons for this and determine which methods to use to prove that this is happening.

Advice

Explain the possible reasons for protein degradation occurring in milk and which proteins are susceptible, and the consequences for this proteolysis in selected products. List the methods which you would use to determine this and what actions you would take to prevent it occurring in the dairy plant and at the farm level.

Contents

1	Introdu	iction		1
2	Milk Composition			
3	Protein Degradation			
	3.1	Reasons	s for Protein Degradation	1
	3.2	Susceptib	ible Proteins	1
4	Consequences of Proteolysis in Milk Products			1
5	Methods			1
	5.1	Determin	ining Protein Degradation	1
	5.2	Preventin	ing Protein Degradation	1
		5.2.1	Dairy Plant Level	1
		5.2.2	Farm Level	1
6	Conclu	sion		1

Chapter 2 | 1 Introduction

1

Synposis for Question 09

- 1 Introduction
- 2 Milk Composition
- 3 Protein Degradation
- 3.1 Reasons for Protein Degradation
- 3.2 Susceptible Proteins
- **4** Consequences of Proteolysis in Milk Products
- 5 Methods
- **5.1 Determining Protein Degradation**
- **5.2** Preventing Protein Degradation
- 5.2.1 Dairy Plant Level
- 5.2.2 Farm Level
- 6 Conclusion