

## CONTENTS

<b>I</b>	<b>Properties and Biosynthesis of Plant Proteins</b>	<b>1</b>
<b>1</b>	<b>THE GENERAL PROPERTIES, CLASSIFICATION AND DISTRIBUTION OF PLANT PROTEINS</b>	<b>3</b>
	<i>D. Boulter and E. Derbyshire, Department of Botany, University of Durham</i>	
<b>2</b>	<b>CHLOROPLAST PROTEINS AND THEIR SYNTHESIS</b>	<b>25</b>
	<i>R.J. Ellis, Department of Biological Sciences, University of Warwick</i>	
<b>3</b>	<b>BIOSYNTHESIS OF LEGUME SEED PROTEINS</b>	<b>41</b>
	<i>A. Yarwood, Department of Botany, University of Durham</i>	
<b>II</b>	<b>Development of Protein Reserves in Seeds</b>	<b>57</b>
<b>4</b>	<b>DEVELOPMENT AND DEPOSITION OF PROTEIN IN OILSEEDS</b>	<b>59</b>
	<i>G. Norton, J. Harris and A. Tomlinson, Department of Applied Biochemistry and Nutrition, University of Nottingham</i>	
<b>5</b>	<b>THE MECHANISMS OF PROTEIN BODY DEPOSITION IN LEGUMES AND CEREALS</b>	<b>81</b>
	<i>L.G. Briarty, Department of Botany, University of Nottingham</i>	
<b>III</b>	<b>Undesirable Factors Associated with Plant Proteins</b>	<b>107</b>
<b>6</b>	<b>NON-PROTEIN NITROGEN COMPOUNDS: TOXICITY AND ANTAGONISTIC ACTION IN RELATION TO AMINO ACID AND PROTEIN SYNTHESIS</b>	<b>109</b>
	<i>L. Fowden, Rothamsted Experimental Station, Harpenden</i>	
<b>7</b>	<b>PROTEASE INHIBITORS AND OTHER TOXIC FACTORS IN SEEDS</b>	<b>117</b>
	<i>I.E. Liener, Department of Biochemistry, University of Minnesota, USA</i>	

x *Contents*

8	THE SIGNIFICANCE OF THE INTESTINAL MICROFLORA IN RELATION TO THE ORAL TOXICITY OF RAW NAVY BEANS AND JACK BEANS FOR JAPANESE QUAIL D.J. Jayne-Williams, <i>National Institute for Research in Dairying, Shinfield, Reading</i>	141
IV	Production of Plant Proteins	153
9	SOURCES OF PLANT PROTEINS – WORLD SUPPLY AND DEMAND E. Orr, <i>Tropical Products Institute, London</i>	155
10	THE PRODUCTION OF LEAF PROTEIN CONCENTRATES FROM FORAGE CROPS S.B. Heath, <i>Department of Agriculture and Horticulture, University of Reading</i>	171
11	PROTEIN PRODUCTION BY MICRO-ORGANISMS J.T. Worgan, <i>National College of Food Technology, University of Reading</i>	191
V	Improvement of Plant Protein Quality and Yield	205
12	IMPROVING THE PROTEIN QUALITY OF CEREALS, GRAIN LEGUMES AND OILSEEDS BY BREEDING A.P. Rhodes and G. Jenkins, <i>Plant Breeding Institute, Cambridge</i>	207
13	FACTORS AFFECTING THE QUALITY AND YIELD OF SEED PROTEIN M. Byers, M.A. Kirkman and B.J. Miflin, <i>Rothamsted Experimental Station, Harpenden</i>	227
VI	Nutrition Aspects	245
14	HUMAN PROTEIN REQUIREMENTS P.R. Payne, <i>Department of Nutrition, London School of Hygiene and Tropical Medicine</i>	247
VII	Plant Proteins in the Food Industry	265
15	PLANT PROTEIN FOOD MODELS IN INDUSTRY A.M. Altschul, <i>Georgetown University, School of Medicine, Washington, D.C.</i>	267

<b>16</b>	<b>FILAMENTS FROM PROTEINS</b>	<b>283</b>
	M.P. Tombs, <i>Unilever Research Laboratory, Colworth House, Sharnbrook</i>	
<b>17</b>	<b>PHYSICAL PROPERTIES OF SEED GLOBULINS WITH REFERENCE TO MEAT ANALOGUE PRODUCTION</b>	<b>289</b>
	P.J. Lillford, <i>Unilever Research Laboratory, Colworth House, Sharnbrook</i>	
<b>18</b>	<b>WHEAT PROTEINS – PHYSICAL PROPERTIES AND BAKING FUNCTION</b>	<b>299</b>
	N.W.R. Daniels and P.J. Frazier, <i>Spillers Limited, Research and Technology Centre, Cambridge</i>	
<b>19</b>	<b>FITTING PLANT PROTEIN RICH FOODS INTO PRESENT AND PROSPECTIVE FOOD LAWS</b>	<b>317</b>
	A.G. Ward, <i>Procter Department of Food and Leather Science, University of Leeds</i>	
	<b>LIST OF PARTICIPANTS</b>	<b>329</b>
	<b>INDEX</b>	<b>337</b>