

INDEX TO VOLUME 52

AUTHOR INDEX

- Accardi, N.** (*see* M. Minetti) 298
Appurao, A. G., and M. S. Narasinga Rao. Binding of CA(II) by the 11S fraction of soybean proteins 21
Axtell, J. D. (*see* R. Jambunathan) 119
- Baker, F. L.** (*see* W. J. Wolf) 387
Bar-David, C. B. F., and C. H. Lerenthal. Rheological and thermodynamic properties of gluten gel 154r
Bauck, L. J. (*see* C. C. Tsen) 629
Bean, M. M. (*see* A. A. Betschart) 812
Bendelow, V. (*see* K. Preston) 427
Bernardin, J. E. The rheology of concentrated gliadin solutions 136r
_____, (*see* H. G. Muller) 122
Betschart, A. A., R. M. Saunders, M. M. Bean, and G. O. Kohler. Effects of processing on the baking qualities of wet alkaline process wheat protein concentrate 812
_____, _____, T. R. Mon, and G. O. Kohler. Variations in the fatty acid composition of stored wheat protein concentrates prepared by wet and dry milling 439
_____, (*see* R. M. Saunders) 472
Bhumiratana, A. (*see* A. Siegel) 801
Bietz, J. A., K. W. Shepherd, and J. S. Wall. Single-kernel analysis of glutenin: use in wheat genetics and breeding 513
_____, and J. S. Wall. The effect of various extractants on the subunit composition and associations of wheat glutenin 145
Bloksma, A. H. Thiol and disulfide groups in dough rheology 170r
Booth, A. N. (*see* J. J. Rackis) 85
Bothast, R. J. (*see* O. L. Shotwell) 687
Brekke, O. L., A. J. Peplinski, and E. L. Griffin, Jr. Cleaning trials for corn containing aflatoxin 198
_____, _____, G. E. N. Nelson, and E. L. Griffin, Jr. Pilot-plant dry milling of corn containing aflatoxin 205
Bressani, R. (*see* M. R. Molina) 240
Briggle, L. W. (*see* Y. Pomeranz) 108
Brusco, V. W. (*see* L. K. Dahle) 212
Bushuk, W. (*see* R. J. Wasik) 322, 328
- Cater, C. M.** (*see* J. T. Lawhon) 34
Cerning, Jutta, A. Saposnik, and A. Guilbot. Carbohydrate composition of horse beans (*Vicia faba*) of different origins 125
Cerning-Beroard, Jutta. A note on sugar determination by the anthrone method 857
_____. The use of invertase for the determination of sucrose. Application to cereals, cereal-products, and other plant materials 431
Chung, O. K., and C. C. Tsen. Changes in lipid binding and distribution during dough mixing 533
_____, and _____. Changes in lipid binding and protein extractability during dough mixing in presence of surfactants 549
_____, and _____. Distribution of lipids in acid-soluble protein components as affected by dough-mixing and surfactants 823
_____, and _____. Functional properties of surfactants in breadmaking. I. Roles of surfactants in relation to flour constituents in a dough system 832
Connor, M. A. (*see* R. M. Saunders) .. 93
- Dahle, L. K., E. P. Montgomery, and V. W. Brusco.** Wheat protein-starch interaction. II. Comparative abilities of wheat and soy proteins to bind starch 212
Dalby, A. (*see* R. A. Jones) 279
_____, (*see* C. Y. Tsai) 356
Daniels, N. W. R. (*see* P. J. Frazier) . 106r
D'Appolonia, B. L., and L. A. MacArthur. Comparison of starch, pentosans, and sugars of some conventional height and semidwarf hard red spring wheat flours 230
_____, and _____. Note on a procedure for the isolation of the water-insoluble pentosans of wheat flour .. 274
_____, (*see* W. C. Shuey) 101
DeHaas, B. W. (*see* K. J. Goering) ... 493
Delgosha, M. (*see* S. B. Vaghefi) 753
Derby, R. I., B. S. Miller, B. F. Miller, and H. B. Trimbo. Visual observation of wheat-starch gelatinization in limited water systems 702
Dexter, J. E., and B. L. Dronzek. Protein synthesis in triticale and its durum wheat and rye parents 577
_____, and _____. Note on the amino acid composition of protein fractions from a developing triticale and its rye and durum wheat parents 587

- Dikeman, E.** (see Y. Pomeranz) 849
 (see C. A. Watson) 742
- Donaldson, G. L.** (see J. S. Wall) 779
 (see M. J. Wolf) 765
- Dreier, A. F.** (see Y. Pomeranz) 225
- Dronzek, B. L.** (see J. E. Dexter) . 577, 587
- Edwards, R. H.** (see R. M. Saunders) .. 93
- Eggitt, P. W. R.** (see P. J. Frazier) ... 106r
- El-Dash, A. A.** (see A. B. Shaheen)..... 1
- El-Shirbeeny, A. E.** (see A. B. Shaheen) . 1
- Ewart, J. A. D.** (see C. T. Greenwood) . 146r
- Feather, M. S.** (see S. Ramchander) .. 166
- Feillet, P.** (see C. Mercier) 283
- Fellers, D. A.** (see P. M. Keagy) 348
 (see E. J-L. Lew) 748
- Fennell, D. I., E. B. Lillehoj, W. F. Kwolek.**
Aspergillus flavus and other fungi
 associated with insect-damaged field corn
 314
 (see E. B. Lillehoj) 403
- Ferrel, R. E.** (see L. P. Hansen) 459
- Finley, J. W.** Sulfanilamide-azoglutelin: A
 chromophoric gluten derivative for
 colorimetrically estimating protease activity
 on gluten 714
- , and A. C. Olson. Automated
 method for measuring added sucrose in
 sweetened cereal products with immobilized
 invertase 500
- Finney, K. F.** (see S. R. Rao) 506
- Frazier, P. J., N. W. R. Daniels, and P. W. R.**
Eggitt. Rheology and the continuous
 breadmaking process 106r
- Gevers, H. O.** A note on the correlation
 between lysine and tryptophan content in
 maize kernel endosperms 115
- Gilbertson, J. T.** (see Y. Pomeranz) ... 479
- Glover, D. V.** (see P. S. Misra)
 161, 734, 844
- Goering, K. J., L. L. Jackson, and B. W.**
DeHaas. Effect of some nonstarch
 components in corn and barley starch
 granules on the viscosity of heated starch-
 water suspensions 493
- Goplin, E. D.** (see Y. Pomeranz) 485
- Goulden, M. L.** (see O. L. Shotwell)
 373, 670, 687
- Greenaway, W. T., and C. A. Watson.** The
 gluto-matic for semiautomatic
 determination of wet and dry gluten content
 of wheat flour 367
- Greenwood, C. T., and J. A. D. Ewart.**
 Hypothesis for the structure of glutenin in
 relation to rheological properties of gluten
 and dough 146r
- Griffin, Jr., E. L.** (see O. L. Brekke)
 198, 205
- Guilbot, A.** (see Jutta Cerning) 125
- Halbrook, W. U., and R. H. Kurtzman, Jr.**
 Water uptake of bean and other starches at
 high temperatures and pressures 156
- Hanna, T. G., and J. Lelievre.** An effect of lipid
 on the enzymatic degradation of wheat
 starch 697
- Hansen, L. P., P. H. Johnson, and R. E.**
Ferrel. Heat-moisture effects on wheat
 flour. I. Physical-chemical changes of flour
 proteins resulting from thermal processing
 459
- Harris, C. C.** (see M. J. Wolf) 765
- Hein, Jr., H.** (see H. W. Schroeder) 751
- Hesseltine, C. W.** (see E. B. Lillehoj) .. 603
 (see O. L. Shotwell)
 373, 381, 670, 687
 (see E. E. Vandegraft) 79
- Hibberd, G. E., and N. S. Parker.**
 Measurement of fundamental rheological
 properties of wheat flour doughs 1r
- Honig, D. H., and J. J. Rackis.** Volatile
 components of maturing soybeans .. 396
- Hoover, W. J.** (see C. C. Tsien) 629
- Hoseney, R. C.** (see S. R. Rao) 506
- Houston, D. F.** (see E. J-L. Lew) 748
- Iacobucci, G. A.** (see K. Okubo) 263
- Irvine, G. N.** (see R. R. Matsuo) 131r
- Ishino, K., and S. Okamoto.** Molecular
 interaction in alkali denatured soybean
 proteins 9
- Jackson, L. K.** (see O. L. Shotwell) ... 373
- Jackson, L. L.** (see K. J. Goering) 493
- Jacobsen, E.** Communication to the editor.
 The FHI-method for moisture
 determination in cereals and feedstuffs
 740
- Jambunathan, R., E. T. Mertz, and J. D.**
Axtell. Communication to the editor.
 Fractionation of soluble proteins of high-
 lysine and normal sorghum grain ... 119
- James, C.** (see J. S. Wall) 779
- Jaska, E., and S. Redfern.** Interaction of
 ferrous sulfate with potassium bromate and
 iodate in brew and dough systems. ... 726

- Jepson, A. M.** (*see* O. L. Shotwell) 670
Johnson, J. A., and R. Srisuthep. Physical and chemical properties of oligosaccharides 70
 (*see* K. M. Patel) 791
Johnston, P. H. (*see* L. P. Hansen) 459
Jones, R. A., A. Dalby, and C. Y. Tsai. A note on a modified technique for the rapid determination of zein content in maize 279
 (*see* C. Y. Tsai) 356
- Ke, C. H.** (*see* D. R. Lineback) 334
Keagy, P. M., E. L. R. Stokstad, and D. A. Fellers. Folacin stability during bread processing and family flour storage 348
Kennedy, B. M., and M. Schelstraete. Chemical, physical, and nutritional properties of high-protein flours and residual kernel from the overmilling of uncoated milled rice. III. Iron, calcium, magnesium, phosphorus, sodium, potassium, and phytic acid 173
 , and A note on silicon in rice endosperm 854
 , , and K. Tamai. Chemical, physical, and nutritional properties of high-protein flours and residual kernel from the overmilling of uncoated milled rice. IV. Thiamine, riboflavin, niacin, and pyridoxine 182
Khoo, U. (*see* M. J. Wolf) 771
Kilborn, R. H. (*see* K. H. Tipples) 248
Kissell, L. T., and W. T. Yamazaki. Protein enrichment of cookie flours with wheat gluten and soy flour derivatives 638
Kohler, G. O. (*see* A. A. Betschart) 439, 812
 (*see* R. M. Saunders) 93
Kuninori, T. (*see* H. Matsumoto) 82r
Kurtzman, Jr., R. H. (*see* W. U. Halbrook) 156
Kwolek, W. F. (*see* D. I. Fennell) 314
 (*see* E. B. Lillehoj) 403, 603
 (*see* O. L. Shotwell) .. 373, 670
Kyle, B. G. (*see* S. W. Park) 611
- Lachance, P. A.** (*see* M. R. Molina) .. 240
Lawhon, J. T., S. H. C. Lin, C. M. Cater, and K. F. Mattil. Fractionation and recovery of cottonseed whey constituents by ultrafiltration and reverse osmosis ... 34
Lelievre, J. (*see* T. G. Hanna) 697
Lerchenthal, C. H. (*see* C. H. F. Bar-David) 154r
- Lew, E. J-L., D. F. Houston, and D. A. Fellers.** A note on protein concentrate from full-fat rice bran 748
Lillehoj, E. B., W. F. Kwolek, D. I. Fennell, and M. S. Milburn. Aflatoxin incidence and association with bright greenish-yellow fluorescence and insect damage in a limited survey of freshly harvested high-moisture corn 403
 , , G. M. Shannon, O. L. Shotwell, and C. W. Hesseltine. Aflatoxin occurrence in 1973 corn at harvest. I. A limited survey in the southeastern U.S. 603
 (*see* D. I. Fennell) 314
Lin, S. H. C. (*see* J. T. Lawhon) 34
Lineback, D. R., and C. H. Ke. Starches and low-molecular-weight carbohydrates from chick pea and horse bean flours 334
 (*see* S. K. Patil) 44, 57
 (*see* A. Siegel) 801
Liu, D. J., and Y. Pomeranz. Distribution of minerals in barley at the cellular level by X-ray analysis 620
 , , and G. S. Robbins. Mineral content of developing and malted barley 678
Lorenz, K. (*see* R. M. Saunders) 472
- Ma, Y., and O. E. Nelson.** Amino acid composition and storage proteins in two new high-lysine mutants in maize ... 412
MacArthur, L. A. (*see* B. L. D'Appolonia) 230, 274
Mander, K. C. (*see* R. A. Orth) 305
Marshall, H. G. (*see* Y. Pomeranz) ... 479
Martin, R. A., G. G. Seaman, and A. Ward. The determination by X-ray observation of bromine and zinc levels in untreated wheat flour 138
Matsumoto, H., J. Nishiyama, T. Mita, and T. Kuninori. Rheology of fermenting dough 82r
Matsuo, R. R., and G. N. Irvine. Rheology of durum wheat products 131r
Mattil, K. G. (*see* J. T. Lawhon) 34
Mayorga, I. (*see* M. R. Molina) 240
McEwen, T. J. (*see* J. W. Watson) ... 272
McGhee, J. E. (*see* J. J. Rackis) 85
Mercier, C., and P. Feillet. Modification of carbohydrate components by extrusion-cooking of cereal products 283
Mertz, E. T. (*see* R. Jambunathan) ... 119
 (*see* P. S. Misra) .. 161, 734, 844
Milburn, M. S. (*see* E. B. Lillehoj) ... 403
Miller, B. F. (*see* R. I. Derby) 702
Miller, B. S. (*see* R. I. Derby) 702

- Minetti, M., G. Morisi, V. Silano, and N. Accardi.** Albumin pools with different extraction behaviors in wheat seed 298
- Misra, P. S., E. T. Mertz, and D. V. Glover.** Studies on corn proteins. VI. Endosperm protein changes in single and double endosperm mutants of maize 161
- _____, _____, and _____. Studies on corn proteins. VII. Developmental changes in endosperm proteins of high-lysine mutants 734
- _____, _____, and _____. Studies on corn proteins. VIII. Free amino acid content of *opaque-2* double mutants 844
- Mita, T. (see H. Matsumoto)** 82r
- Molina, M. R., I. Mayorga, P. A. Lachance, and R. Bressani.** Production of high-protein quality pasta products using a semolina-corn-soy flour mixture. I. Influence of thermal processing of corn flour on pasta quality 240
- Mon, T. R. (see A. A. Betschart)** 439
- Montgomery, E. P. (see L. K. Dahle)** 212
- Morisi, G. (see M. Minetti)** 298
- Muller, H. G.** Rheology and the conventional bread and biscuit-making process 89r
- _____, and J. E. Bernardin. A note on the flocculation mechanism of the zeleny sedimentation 122
- Myers, D. V. (see K. Okuba)** 263
- Narasinga Rao, M. S. (see A. G. Appurao)** 21
- Nelson, G. E. N. (see O. L. Brekke)** 205
- Nelson, O. E. (see Y. Ma)** 412
- Nishiyama, J. (see H. Matsumoto)** 82r
- Okamoto, S. (see K. Ishino)** 9
- Okubo, K., A. B. Waldrop, G. A. Iacobucci, and D. V. Myers.** Preparation of low-phytate soybean protein isolate and concentrate by ultrafiltration 263
- Olson, A. C. (see J. W. Finley)** 500
- Orth, R. A., and K. C. Mander.** Effect of milling yield on flour composition and breadmaking quality 305
- Park, S. W., and B. G. Kyle.** Sorption kinetics and equilibria of carbon tetrachloride on wheat 611
- Parker, N. S. (see G. E. Hibberd)** 1r
- Patel, K. M., and J. A. Johnson.** Horsebean protein supplements in breadmaking. II. Effect on physical dough properties, baking quality, and amino acid composition 791
- Patil, S. K., C. C. Tsen, and D. R. Lineback.** Water-soluble pentosans of wheat flour. I. Viscosity properties and molecular weights estimated by gel filtration 44
- _____, _____, and _____. Water-soluble pentosans of wheat flour. II. Characterization of pentosans and glycoproteins from wheat flour and dough mixed under various conditions 57
- Peplinski, A. J. (see O. L. Brekke)** 198, 205
- Pomeranz, Y., H. G. Marshall, G. S. Robbins, and J. T. Gilbertson.** Protein content and amino acid composition of maturing buckwheat (*Fagopyrum esculentum* Moench) 479
- _____, G. S. Robbins, and L. W. Briggle. Amino acids in sound and ergot-infected cereals and grasses 108
- _____, J. J. Schreck, and A. F. Dreier. Influence of nitrogen and phosphorus fertilizer on malting characteristics of rye 225
- _____, N. N. Standridge, G. S. Robbins, and E. D. Goplin. Malting of new wheat cultivars 485
- _____, R. A. Stermer, and E. Dikeman. NMR-oil content as an index of degree of rice milling 849
- _____, (see D. J. Liu) 620, 678
- Prentice, N.** Invertase activity as a measure of malting quality of barley 650
- Preston, K.** An automated fluorometric assay for proteolytic activity in wheat 451
- _____, and W. Woodbury. Amino acid composition and subunit structure of rye gliadin proteins fractionated by gel filtration 719
- _____, _____, and V. Bendelow. The effects of gliadin fractions of varying molecular weight on the mixing properties of a synthetic-dough system 427
- Puski, G.** Modification of functional properties of soy proteins by proteolytic enzyme treatment 655
- Rackis, J. J., J. E. McGhee, and A. N. Booth.** Biological threshold levels of soybean trypsin inhibitors by rat bioassay 85
- _____, (see D. H. Honig) 396
- Raghavendra Rao, M. R. (see B. S. Shastry)** 597

- Rambo, G., J. Tuite, and G. L. Zachariah.** Fluorescence associated with corn infected with *Aspergillus flavus* and *A. parasiticus* in storage 757
- Ramchander, S., and M. S. Feather.** Studies on the mechanism of color formation in glucose syrups 166
- Rao, S. R., R. C. Hoseney, K. F. Finney, and M. D. Shogren.** Effect of gamma irradiation of wheat on breadmaking properties 506
- Rasper, V. F.** Dough rheology at large deformations in simple tensile mode 24r
- Redfern, S. (see E. Jaska)** 726
- Robbins, G. S. (see D. J. Liu)** 678

(see Y. Pomeranz) 108, 479, 485
- Rooney, L. W. (see R. D. Sullins)** 361
- Rubenthaler, G. L. (see W. F. Sollars)** 420
- Saposnik, A. (see Jutta Cerning)** 125
- Saunders, R. M., A. A. Betschart, and K. Lorenz.** The sugars of triticale bran 472

(see M. A. Connor, R. H. Edwards, and G. O. Kohler.) Preparation of protein concentrates from wheat shorts and wheat millrun by a wet alkaline process 93
(see A. A. Betschart) 439, 812
- Schelstraete, M. (see B. M. Kennedy)** 173, 182, 854
- Schreck, J. J. (see Y. Pomeranz)** 225
- Schroeder, H. W., and H. Hein, Jr.** A note on zearalenone in grain sorghum 751
- Seaman, G. G. (see R. A. Martin)** 138
- Shaheen, A. B., A. A. El-Dash, and A. E. El-Shirbeeny.** Effect of parboiling of rice on the rate of lipid hydrolysis and deterioration of rice bran 1
- Shannon, G. M. (see E. B. Lillehoj)** 603

(see O. L. Shotwell) 381
- Shastray, B. S., and M. R. Raghavendra Rao.** Studies on lipoxygenase from rice bran 597
- Shepherd, K. W. (see J. A. Bietz)** 513
- Shogren, M. D. (see S. R. Rao)** 506
- Shotwell, O. L., M. L. Goulden, R. J. Bothast, and C. W. Hesseltine.** Mycotoxins in hot spots in grains. I. Aflatoxin and zearalenone occurrence in stored corn 687

(see A. M. Jepson, W. F. Kwolek, and C. W. Hesseltine.) Aflatoxin occurrence in some white corn under loan, 1971. III. Association with bright greenish-yellow fluorescence in corn 670
- _____
(see W. F. Kwolek, M. L. Goulden, L. K. Jackson, and C. W. Hesseltine.) Aflatoxin occurrence in some white corn under loan, 1971. I. Incidence and level 373

(see G. M. Shannon, and C. W. Hesseltine.) Aflatoxin occurrence in some white corn under loan, 1971. II. Effectiveness of rapid tests in segregating contaminated corn 381

(see E. B. Lillehoj) 603
(see E. E. Vandegraft) 79
- Shuey, W. C.** Practical instruments for rheological measurements on wheat products 42r
- _____
(see L. D. Sibbitt, and B. L. D'Appolonia.) Influence of ergot on spring wheat milling and baking quality 101
- Sibbitt, L. D. (see W. C. Shuey)** 101
- Siegel, A., A. Bhumiwatana, and D. R. Lineback.** Development, acceptability, and nutritional evaluation of high-protein soy-supplemented rice noodles for Thai children 801
- Silano, V. (see M. Minetti)** 298
- Sollars, W. F., and G. L. Rubenthaler.** Flour fractions affecting farinograph absorption 420
- Srisuthep, R. (see J. A. Johnson)** 70
- Standridge, N. N. (see Y. Pomeranz)** 485
- Stermer, R. A. (see Y. Pomeranz)** 849

(see C. A. Watson) 742
- Stokstad, E. L. R. (see P. M. Keagy)** 348
- Sullins, R. D., and L. W. Rooney.** Light and scanning electron microscopic studies of waxy and nonwaxy endosperm sorghum varieties 361
- Tamai, K. (see B. M. Kennedy)** 182
- Tipples, K. H., and R. H. Kilborn.** "Unmixing" — the disorientation of developed bread doughs by slow speed mixing 248
- Trimbo, H. B. (see R. I. Derby)** 702
- Tsai, C. Y., A. Dalby, and R. A. Jones.** Lysine and tryptophan increases during germination of maize seed 356

(see R. A. Jones) 279
- Tsen, C. C., L. J. Bauck, and W. J. Hoover.** Using surfactants to improve the quality of cookies made from hard wheat flours 629

(see O. K. Chung) 533, 549, 823, 832

(see S. K. Patil) 44, 57
- Tuite, J. (see G. Rambo)** 757

- Vaghefi, S. B., and M. Delgosha.** Fortification of Persian-type bread with vitamin A 753
- Vandegraft, E. E., C. W. Hesselting, and O. L. Shotwell.** Grain preservatives: effect on aflatoxin and ochratoxin production 79
- Volpe, T., and M. E. Zabik.** A whey protein contributing to loaf volume depression 188
-
- Waldrop, A. B. (see K. Okubo)** 263
- Wall, J. S., C. James, and G. L. Donaldson.** Corn proteins: chemical and physical changes during drying of grain 779
(*see* J. A. Bietz) 145, 513
- Ward, A. (see R. A. Martin)** 138
- Wasik, R. J., and W. Bushuk.** Relation between molecular-weight distribution of endosperm proteins and spaghetti-making quality of wheats 322
, and Sodium dodecyl sulfate-polyacrylamide gel electrophoresis of reduced glutenin of durum wheats of different spaghetti-making quality .. 328
- Watson, C. A., E. Dikeman, and R. A. Stermer.** A note on surface lipid content and scanning electron microscopy of milled rice as related to degree of milling 742
(*see* W. T. Greenaway) ... 367
-
- Watson, J. W., T. J. McEwen, and W. Bushuk.** Note on dry milling of fababeans 272
- Williams, P. C.** Application of near infrared reflectance spectroscopy to analysis of cereal grains and oilseeds 561
- Wolf, M. J., C. C. Harris, and G. L. Donaldson.** Corn endosperm: protein distribution and amino acid composition in amylo maize vs. normal dent hybrid 765
, and U. Khoo. Subcellular distribution and enzyme digestibility of endosperm proteins of amylo maize and normal corn 771
- Wolf, W. J., and F. L. Baker.** Scanning electron microscopy of soybeans, soy flours, protein concentrates, and protein isolates 387
- Woodburn, M. (see J. Wozenski)** 665
- Woodbury, W. (see K. Preston)** ... 427, 719
- Wozenski, J., and M. Woodburn.** Phytic acid (myoinositol hexaphosphate) and phytase activity in four cottonseed protein products 665
-
- Yamazaki, W. T. (see L. T. Kissell)** ... 638
-
- Zabik, M. E. (see T. Volpe)** 188
- Zachariah, G. L. (see G. Rambo)** 757

SUBJECT INDEX

- Absorption;** flour fractions affecting farinograph absorption (Sollars and Rubenthaler) 420
- Aflatoxin**
- And zearealenone, occurrence in hot spots in stored corn (Shotwell *et al.*) 687
 - Association with bright greenish-yellow fluorescence in corn; use of fluorescence as a presumptive test (Shotwell *et al.*) 670
 - Dry milling of contaminated corn (Brekke *et al.*) 205
 - Incidence in some white corn (Shotwell *et al.*) 373
 - In corn; a limited survey in southeastern U.S. (Lillehoj *et al.*) 603
 - In corn; cleaning trials for (Brekke *et al.*) 198
 - In corn infected with *Aspergillus flavus* and *A. parasiticus* in storage (Rambo *et al.*) 757
 - In freshly harvested corn (Lillehoj *et al.*) 403
 - In white corn (Shotwell *et al.*) 381
- Amino Acids**
- Composition, of protein fractions from a developing triticale and its rye and durum wheat parents (Dexter and Dronzek) 587
 - Correlation between lysine and tryptophan content in maize kernel endosperms (Gevers) 115
 - In buckwheat (Pomeranz *et al.*) 479
 - In rye gliadins (Preston and Woodbury) 719
 - In sound and ergot-infected cereals and grasses (Pomeranz *et al.*) 108
- Apparatus**
- Laboratory grinder for moisture determination in cereals and feedstuffs (Jacobsen) 740
 - Practical apparatus for rheological measurements on wheat products (Shuey) 42r
 - The gluto-matic for semiautomatic determination of wet and dry gluten content of wheat flour (Greenaway and Watson) 367
- Barley**
- Ash, mineral components (Liu *et al.*) 678
 - Invertase activities in (Prentice) 650
 - Minerals in, distribution at the cellular level determined by X-ray analysis (Liu and Pomeranz) 620
- Bread and Breadmaking**
- Breadmaking properties of irradiated wheat (Rao *et al.*) 506
 - Effect of milling yield on flour composition and breadmaking quality (Orth and Mander) 305
 - Folacin stability during bread processing and family flour storage (Keagy *et al.*) 348
 - Fortification and enrichment with vitamin A (Vaghefi and Delgosha) 753
 - Horsebean protein supplements in; effect on physical dough properties, baking quality, and amino acid composition (Patel and Johnson) 791
 - Influence of ergot on spring wheat milling and baking quality (Shuey *et al.*) 101
 - Rheology and the conventional bread and biscuit-making process (Muller) 89r
 - Rheology and the continuous breadmaking process (Frazier *et al.*) 106r
 - "Unmixing"; disorientation of developed bread doughs by slow speed mixing (Tipples and Kilborn) 248
 - Whey protein contributing to loaf volume depression (Volpe and Zabik) 188
- Carbohydrates**
- Composition in horse beans (Cerning *et al.*) 125
 - Modification of carbohydrate components by extrusion-cooking of cereal products (Mercier and Feillet) 283
 - Procedure for isolating water-insoluble pentosans of wheat flour (D'Appolonia and MacArthur) 274
- Color;** formation in glucose syrups (Ramchander and Feather) 166
- Cookie flours**
- Protein enrichment with wheat gluten and soy flour derivatives (Kissell and Yamazaki) 638
 - Using surfactants to improve quality of cookies from hard wheat flours (Ts'en *et al.*) 629
- Corn**
- Amino acid composition and storage proteins in two new high-lysine mutants (Ma and Nelson) 412
 - Aflatoxin-contaminated; dry milling (Brekke *et al.*) 198
 - Aflatoxin occurrence in; limited survey of southeastern U.S. (Lillehoj *et al.*) 603
 - Aspergillus flavus* and other fungi associated with insect-damaged field corn (Fennell *et al.*) 314
 - Containing aflatoxin; cleaning trials (Brekke *et al.*) 198
 - Correlation between lysine and tryptophan

- content in maize kernel endosperms (Gevers) 115
Endosperm protein composition in amylomaize and normal corn (Wolf *et al.*) 765
 Endosperm proteins, electron microscopy of; amylomaize, endosperm proteins of (Wolf and Khoo) 771
 Insect damage of (Lillehoj *et al.*) 403
 Lysine and tryptophan increases during germination of maize seed (Tsai and Dalby) 356
Opaque-2 double mutants, free amino acids in (Misra *et al.*) 844
 Proteins, changes during artificial drying (Wall *et al.*) 779
 Proteins; endosperm protein changes in single and double endosperm mutants of maize (Misra *et al.*) 161
 White; aflatoxin incidence in (Shotwell *et al.*) 373
 Zein content in; a modified technique for rapid determination of (Jones *et al.*) 279
- Dough**
 Fermenting; rheology of (Matsumoto *et al.*) 82r
 Hypothesis for the structure of glutenin in relation to rheological properties of gluten and dough (Greenwood and Ewart) 146r
 Rheology at large deformations in simple tensile mode (Rasper) 24r
 Thiol and disulfide groups in dough rheology (Bloksma) 170r
 Wheat flour, measurement of fundamental rheological properties of (Hibberd and Parker) 1r
- Dough mixing**
 Changes in lipid binding and distribution during (Chung and Tsen) 533
 Effects of gliadin fractions of varying molecular weight on mixing properties of a synthetic-dough system (Preston *et al.*) 427
 Lipid binding and protein extractability, effect of surfactants during (Chung and Tsen) 549
 "Unmixing"; the disorientation of developed bread doughs by slow speed mixing (Tipples and Kilborn) 248
- Enzymes**
 Biological threshold levels of soybean trypsin inhibitors by rat bioassay (Rackis *et al.*) 85
- Phytase activity in cottonseed flours and kernels (Wozenski and Woodburn) 665
- Errata**
 Tipples, K. H., and R. H. Kilborn (Vol. 52, pp. 248-262) 402
- Fatty acids**; variation in fatty acid composition of stored wheat protein concentrates prepared by wet and dry milling (Betschart *et al.*) 439
- Fertilizer**; nitrogen and phosphorus; effect on malting characteristics of rye (Pomeranz *et al.*) 225
- Flour**
 Chemical, physical, and nutritional properties of, from overmilling of uncoated milled rice, III (Kennedy and Schelstraete) 173
 Chemical, physical, and nutritional properties of, from overmilling of uncoated milled rice, IV (Kennedy *et al.*) 182
 Chick pea and horse bean; starches and low-molecular-weight carbohydrates from (Lineback and Ke) 334
 Cottonseed; phytic acid and phytase activity (Wozenski and Woodburn) 665
 Flocculation mechanism of the zeleny sedimentation test (Muller) 122
 Fractions affecting farinograph absorption (Sollars and Rubenthaler) 420
 Wheat; comparison of starch, pentosans, and sugars of some conventional height and semidwarf hard red spring (D'Appolonia and MacArthur) 230
 Wheat; water soluble pentosans of, I, viscosity properties and molecular weights estimated by gel filtration (Patil *et al.*) 44
 Wheat; water soluble pentosans of, II, characterization of pentosans and glycoproteins from wheat flour and dough mixed under various conditions (Patil *et al.*) 57
- Fluorescence**
 Aflatoxin incidence and association with, in corn (Lillehoj *et al.*) 403
 And aflatoxin occurrence in corn (Shotwell *et al.*) 670
 Bright greenish yellow, in corn (Rambo *et al.*) 757
- Fortification**
 Interaction of ferrous sulfate with potassium bromate and iodate in brew and

- dough systems** (Jaska and Redfern) 726
 Of bread, with vitamin A in a decentralized system (Vaghefi and Delgosha) 753
 Of cookie flour with gluten and soy proteins (Kissell and Yamazaki) 638
- Fungi**
Aspergillus flavus and other fungi associated with insect-damaged field corn (Fennell *et al.*) 314
Fusarium spp and zearalenone in grain sorghum (Schroeder and Hein) 751
 Influence of ergot on spring wheat milling and baking quality (Shuey *et al.*) .. 101
- Genetics and Breeding**; single-kernel analysis of glutenin use in wheat (Bietz *et al.*) 513
- Gliadins**; rheology of concentrated solutions (Bernardin) 136r
- Gluten**
 Rheological and thermodynamic properties of gluten gel (Bar-David and Lerchenthal) 154r
 Sulfanilamide-azogluten; a chromophoric gluten derivative for colorimetrically estimating protease activity on gluten (Finley) 714
- Glutenin**
 Hypothesis for the structure of glutenin in relation to rheological properties of gluten and dough (Greenwood and Ewart) 146r
 Wheat; effect of extractants on subunit composition and associations (Bietz and Wall) 145
- Grain preservatives**; effect on aflatoxin and ochratoxin production (Vandegraft *et al.*) 79
- Heat processing**; heat-moisture effects on wheat flour, I (Hansen *et al.*) 459
- Horse beans**; carbohydrate composition of (Cerning *et al.*) 125
- Iron**; interaction of ferrous sulfate with potassium bromate and iodate in brew and dough systems (Jaska and Redfern) . 726
- Lipids**
 Binding and distribution; effect of dough mixing on (Chung and Tsen) 533
 Binding; and protein extractability; effect of surfactants during dough mixing (Chung and Tsen) 549
 Binding; in protein components; effect of dough-mixing and surfactants (Chung and Tsen) 823
- Lipoxygenase**; from rice bran (Shastry and Raghavendra Rao) 597
- Methods**
 Anthrone method for determination of sugar (Cerning-Beroard) 857
 Automated fluorometric assay for proteolytic activity in wheat (Preston) 451
 Automated, for measuring added sucrose in sweetened cereal products with immobilized invertase (Finley and Olson) 500
 Extrusion-cooking of cereal products for modification of carbohydrate components (Mercier and Feillet) 283
 Flocculation mechanism of the zeleny sedimentation test (Muller) 122
 Fractionation and recovery of cottonseed whey constituents by ultrafiltration and reverse osmosis (Lawhon *et al.*) 34
 Modified technique for rapid determination of zein content in maize (Jones *et al.*) 279
 Moisture determination in cereals and feedstuffs (Jacobsen) 740
 Preparation of protein concentrates from wheat shorts and wheat millrun by a wet alkaline process (Saunders *et al.*) ... 93
 Procedure for isolating water-insoluble pentosans of wheat flour (D'Appolonia and MacArthur) 274
 Rapid tests for aflatoxin in corn (Shotwell *et al.*) 381
 Sucrose determination (Cerning-Beroard) 431
 The glutomatic for semiautomatic determination of wet and dry gluten content of wheat flour (Greenaway and Watson) 367
 Use of near infrared reflectance spectroscopy in the analysis of cereal grains and oilseeds (Williams) 561
 X-Ray observation of bromine and zinc levels in untreated wheat flour (Martin *et al.*) 138
- Microscopy**
 Light and scanning; studies of waxy and

- nonwaxy endosperm sorghum varieties (Sullins and Rooney) 361
 Scanning electron; distribution of minerals in barley determined by X-ray analysis (Liu and Pomeranz) 620
 Scanning electron; of milled rice (Watson *et al.*) 742
 Scanning electron; of soybeans and soybean products (Wolf and Baker) 387
- Milling**
 Degree of; surface lipid content of rice as related to (Watson *et al.*) 742
 Dry; of fababeans (Watson *et al.*) 272
 Yield; effect on flour composition and breadmaking quality (Orth and Mander) 305
- Minerals**
 In barley tissues; distribution analyzed by X-ray (Liu and Pomeranz) 620
 In sections of developing and malted barley (Liu *et al.*) 678
- Nutrition**
 High-protein soy-supplemented noodles (Siegel *et al.*) 801
 Horsebean protein supplements in breadmaking, II, effect on physical dough properties, baking quality, and amino acid composition (Patel and Johnson) 791
- Pasta**
 And pasta products; high-protein soy-supplemented noodles (Siegel *et al.*) 801
 High-protein quality; using semolina-corn-soy flour mixture, I, influence of thermal processing of corn flour on pasta quality (Molina *et al.*) 240
 Relation between molecular-weight distribution of endosperm proteins and spaghetti-making quality of wheats (Wasik and Bushuk) 322
 Sodium dodecyl sulfate-polyacrylamide gel electrophoresis of reduced glutenin of durum wheats of different spaghetti-making quality (Wasik and Bushuk) 328
- Proteins**
 Albumin pools with different extraction behaviors in wheat seed (Minetti *et al.*) 298
 Amino acid composition of protein fractions from a developing triticale and its rye and durum wheat parents (Dexter and Dronzek) 587
- Amino acids in sound and ergot-infected cereals and grasses (Pomeranz *et al.*) 108
 Amylomaize vs. normal corn endosperm proteins (Wolf *et al.*) 765
 Components; lipid binding in: effect of dough-mixing and surfactants (Chung and Tsen) 823
 Corn; endosperm protein changes in single and double endosperm mutants of maize (Misra *et al.*) 161
 Developing corn kernels (Misra *et al.*) 734
 Fractionation of soluble proteins of high-lysine and normal sorghum grain (Jambunathan *et al.*) 119
 In buckwheat (Pomeranz *et al.*) 479
 In maize endosperm, ultrastructure and enzyme digestibility of (Wolf and Khoo) 771
 In two new high-lysine mutants in maize (Ma and Nelson) 412
 Of corn, changes during drying (Wall *et al.*) 779
 Preparation of protein concentrates from wheat shorts and wheat mill run by a wet alkaline process (Saunders *et al.*) 93
 Relation between molecular-weight distribution of endosperm proteins and spaghetti-making qualities of wheats (Wasik and Bushuk) 322
 Rye gliadin; fractionation, amino acid composition, and subunits of (Preston and Woodbury) 719
 Soy; modification of, by proteolytic enzyme treatment (Puski) 655
 Soybean; binding of Ca(II) by the 11S fraction of (Appurao and Narasinga Rao) 21
 Soybean; molecular interaction in alkali-denatured (Ishino and Okamoto) 9
 Soybean; removal of phytic acid by ultrafiltration (Okubo *et al.*) 263
 Synthesis in triticale and its durum wheat and rye parents (Dexter and Dronzek) 577
 Wheat and soy; abilities to bind starch (Dahle *et al.*) 212
 Wheat concentrate, effect of processing on the baking quality of (Betschart *et al.*) 812
 Whey; contributing to loaf volume depression (Volpe and Zabik) 188
- Rice**
 Effect of parboiling, on rate of lipid hydrolysis and deterioration of rice bran (Shaheen *et al.*) 1
 NMR-oil content of milled rice (Pomeranz *et al.*) 849

Overmilling, minerals and phytic acid in mill-fractions, III (Kennedy and Schelstraete)	173
Overmilling, minerals and phytic acid in mill-fractions, IV (Kennedy <i>et al.</i>)	182
Silicon in endosperm (Kennedy and Schelstraete)	854
Surface lipid content; scanning electron microscopy of milled rice as related to degree of milling (Watson <i>et al.</i>)	742
Rice bran	
Protein concentrate recovery (Lew <i>et al.</i>)	748
Lipoxygenase (Shastry and Raghavendra Rao)	597
Sorption kinetics; and equilibria of carbon tetrachloride on wheat (Park and Kyle) 611	
Soybeans	
Biological threshold levels of soybean trypsin inhibitors by rat bioassay (Rackis <i>et al.</i>)	85
Proteins; modification of, by proteolytic enzyme treatment (Puski)	655
Scanning electron microscopy of (Wolf and Baker)	387
Volatile components of maturing soybeans (Honig and Rackis)	396
Spectroscopy; infrared reflectance, application to analysis of cereal grains and oilseeds (Williams) 561	
Starch	
Binding with wheat and soy proteins (Dahle <i>et al.</i>)	212
Effect of nonstarch components on viscosity of corn and barley starch granules (Goering <i>et al.</i>)	493
From chick pea and horse bean flours (Lineback and Ke)	334
Gelatinization of, in baked products (Derby <i>et al.</i>)	702
Water uptake of bean at high temperatures and pressures (Halbrook and Kurtzman)	156
Wheat; effect of lipid on the enzymatic degradation of (Hanna and Lelievre)	697
Sugar	
Determination by the anthrone method (Cerning-Beroard)	857
Determination in cereals, cereal products, and other plant material (Cerning-Beroard)	431
Measured in sweetened cereal products (Finley and Olson)	500
Mechanism of color formation in glucose syrups (Ramchander and Feather)	166
Of triticale bran (Saunders, <i>et al.</i>)	472
Physical and chemical properties of oligosaccharides (Johnson and Srisuthep)	70
Surfactants	
Functional properties in a dough system (Chung and Tsen)	832
To improve quality of cookies from hard wheat flours (Tsen <i>et al.</i>)	629
Wheat	
Automated fluorometric assay for proteolytic activity (Preston)	451
Diffusion of carbon tetrachloride vapor into kernels (Park and Kyle)	611
Effects of processing on baking quality of wet alkaline process wheat protein concentrate (Betschart <i>et al.</i>)	812
Flour; comparison of starch, pentosans, and sugars of some conventional height and semidwarf hard red spring (D'Appolonia and MacArthur)	230
Flour dough; measurement of the fundamental rheological properties of (Hibberd and Parker)	1r
Flour; X-ray observation to determine bromine levels in (Martin <i>et al.</i>)	138
Glutenin; effect of extractants on subunit composition and associations (Bietz and Wall)	145
Malting of new wheat cultivars (Pomeranz <i>et al.</i>)	485
Products; practical instruments for rheological measurements on (Shuey) 42r	
Rheology of durum wheat products (Matsuo and Irvine)	131r
Seed; albumin pools with different extraction behaviors in (Minetti <i>et al.</i>)	298
Starch; effect of lipid on enzymatic degradation of (Hanna and Lelievre)	697

Cereal Chemistry

Published by The American Association of Cereal Chemists, Inc.

<i>Scientific Editor</i>	WELKER G. BECHTEL
<i>Publications Manager</i>	STEVEN C. NELSON
<i>Technical Editor</i>	JACQUELYN F. SORENSEN
<i>Publisher</i>	RAYMOND J. TARLETON

Board of Editors:

R. A. ANDERSON	D. F. HOUSTON
B. L. D'APPOLONIA	L. T. KISSELL
J. N. BeMILLER	N. E. LLOYD
A. A. BETSCHART	K. LORENZ
C. M. CATER	R. R. MATSUO
D. A. FELLERS	E. T. MERTZ
J. C. FRITZ	Y. POMERANZ
C. T. GREENWOOD	N. PRENTICE
R. H. HAHN	J. J. RACKIS
R. C. HOSENEY	C. D. STONE

VOLUME 52, NOS. 1-6
JANUARY-NOVEMBER 1975

St. Paul, Minnesota

1975