

SUBJECT INDEX

- Acetic acid**
in rye sour, gas chromatographic method for determination (Kratochvíl and Holas), **209**
- Aflatoxin**
contamination of preharvest corn, role of *Aspergillus flavus* inoculum and insect damage (Lillehoj et al), **255**
corn contaminated with; physical method for segregating (Huff), **236**
distribution in contaminated corn plants (Shotwell et al), **206**
distribution in individual corn kernels (Lee et al), **340**
incidence and level in preharvest corn (McMillian et al), **83**
- Air classification**
navy bean flour; amino acid and mineral profile of (Patel et al), **123**
- Amino acids**
in air-classified navy bean flour (Patel et al), **123**
analyses of proteins of histological components of high-protein rice (Bradbury et al), **343**
composition of baladi bread (Arafah et al), **35**
composition of barley, by computer factor analysis (Martens and Bach Knudsen), **97**
of faba beans in U.S. and Egyptian balady breads (Finney et al), **267**
in proso millet flours (Lorenz et al), **16**
in sweet lupine-fortified bread (El Dash et al), **9**
- α -Amylase**
from barley malt; hydrolysis of granules from normal and waxy barley cultivars (MacGregor and Ballance), **397**
effect on bread staling (Dragsdorf and Varriano-Marston), **310**
nephelometric method for determining cereal (O'Connell et al), **411**
- Amylopectin**
debranching and structure (Atwell et al), **12**
- Amylose**
content of wheat flour (Oda et al), **253**
- Baking**
cake; expansion and heat set of batter during (Mizukoshi et al), **352**
cake; oxidation of cake flour (Johnson et al), **94**
cookies; effects of removal of free flour lipids on internal structure (Clements), **445**
cookies; method to evaluate flour quality for rotary-molded cookies (Gaines and Tsen), **429**
dough strength requirements (Moss), **195**
effect of procedure on pasting properties of bread crumb (Morad and D'Appolonia), **239**
germination effect on physicochemical and bread-baking properties of legume flours and starches (Morad et al), **390**
laboratory method for saltine crackers (Pizzinatto and Hosney), **249**
properties of wheat flours; gluten protein effects (Preston and Tipples), **314**
with proso millet flours (Lorenz and Dilsaver), **21**
semidwarf and standard height HRS wheat comparisons (McGuire et al), **32**
of sugar cookies; using fortified cottonseed flour (Vecchionacce and Setser), **303**
- Barley**
enzymic analysis of beta-D-glucans in (Prentice et al), **198**
- hydrolysis of granules from, by α -amylases from barley malt (MacGregor and Ballance), **397**
lipids and fatty acid composition of (Bhatti and Rosnagel), **382**
proteins; fractioning by computer factor analysis (Martens and Bach Knudsen), **97**
- Black gram**
changes in oligosaccharides during germination and cooking of (Reddy and Salunkhe), **356**
- Bran**
millet milling (Lorenz et al), **16**
- Bread and bread making**
ascorbic acid as an oxidant (Elkassabany and Hosney), **88**
baking procedure and surfactant effect on pasting properties of bread crumb (Morad and D'Appolonia), **239**
baladi; productive protein value of (Arafah et al), **35**
conversion of ascorbic acid to dehydroascorbic acid (Elkassabany et al), **85**
dietary fiber; containing gobo residue, gobo holocellulose, and konjac powder (Nagai et al), **307**
faba bean in conventional U.S. and Egyptian balady breads (Finney et al), **267**
factors affecting softness and firming rates (Maleki et al), **138**
fermentative reduction of phytate in rye, white, and whole wheat (Harland and Harland), **226**
mixing tolerance, effect of lipoxygenase (Hosney et al), **163**
properties of wheat flours; protein solubility with soaps, communication to editor (Kobrehel and Matignon), **73**
with proso millet flours (Lorenz and Dilsaver), **21**
quality of bread fortified with ten micronutrients (Emodi and Scialpi), **1**
response to shortening addition and lipid removal (Chung et al), **111**
response to shortening of flour defatted by varying solvent and temperature (Chung et al), **106**
sweet lupine-fortified; nutritional value and amino acid content of (El Dash et al), **9**
whole wheat; fresh egg yolk in (Birch and Finney), **248**
- Brewer's spent grain**
milling and baking properties of (Finley and Hanamoto), **166**
- Cakes and cookies**
cookies; baking method to evaluate flour quality for rotary-molded (Gaines and Tsen), **429**
cookies; effects of removal of free flour lipids on internal structure (Clements), **445**
effect of corn syrups on layer cakes (Koepsel and Hosney), **49**
effect of storing and heating nondefatted and defatted flours (Johnson and Hosney), **92**
expansion and heat set of cake batter during baking (Mizukoshi et al), **352**
oxidation of starch by chlorine treatment of cake flour (Johnson et al), **94**
with proso millet flours (Lorenz and Dilsaver), **21**
shortenings encapsulated with oilseed proteins (Baker et al), **257**
sugar cookie quality, with fortified cottonseed flour (Vecchionacce and Setser), **303**
- Carbohydrates**
comparison of nonstarchy polysaccharides in oats and wheat (MacArthur and D'Appolonia), **39**

- Cereal**
enzymic analysis of beta-D-glucans in (Prentice et al), **198**
- Cereal grains**
granary storage of, mycotoxin and odor formation in (Abramson et al), **346**
method for isolation and analysis of cell wall material from (Selvendran and Du Pont), **278**
- Chlorination**
storing and heating flour as substitute for (Johnson and Hosenev), **92**
- Choline**
estimation in plant protein sources (Atwal et al), **368**
- Corn**
aflatoxin-contaminated; physical method for segregation of (Huff), **236**
aflatoxin distribution in contaminated (Shotwell et al), **206**
aflatoxin distribution in individual kernels (Lee et al), **340**
aflatoxin incidence and level in preharvest (McMillian et al), **83**
colorimetric method for zein determination in (Esen), **129**
high-moisture shelled; effect of microwave heating on (Nofsinger et al), **373**
preharvest; aflatoxin contamination of, role of *Aspergillus flavus* inoculum and insect damage (Lillehoj et al), **255**
reducing agent effect on zein preparation (Tsai), **288**
- Cottonseed**
flour; use in sugar cookie baking (Vecchionacce and Setser), **303**
- Crackers**
saltine; laboratory method for (Pizzinatto and Hosenev), **249**
- Cracker sponges**
rheological changes during fermentation (Pizzinatto and Hosenev), **185**
- Dough**
ascorbic acid as an oxidant (Elkassabany et al), **85**
ascorbic acid role in development (Grant and Sood), **46**
changes in pentosans as a result of mixing and oxidation (Yeh et al), **144**
differential scanning calorimeter study of (Eliasson and Hegg), **436**
dynamic viscoelastic properties of, dependence on mixing time (Bohlin and Carlson), **174**
fumaric acid reaction with gluten during mixing (Sidhu et al), **159**
measuring fermentation rates with a gasograph (Rubenthaler et al), **212**
oxidant effect on consistency under heating (Tanaka et al), **169**
rheological effects of ascorbic acid (Elkassabany and Hosenev), **88**
starch granule size effect on rheology (Rasper and deMan), **331**
strength; protease effect from *Saccharomyces carlsbergensis* (Woods et al), **290**
strength requirements of (Moss), **195**
- Drying**
of rice, volumetric reduction of (Steffe and Singh), **148**
- Electrophoresis**
analysis of soy protein by (Anderson), **155**
protein solubilization with soaps, relation to bread-making properties of wheat flours, communication to editor (Kobrehel and Matignon), **73**
reducing agent effect on zein preparation (Tsai), **288**
zein fractionation by ion-exchange chromatography on phosphocellulose, communication to editor (Esen), **75**
- Enrichment**
natural levels of nutrients in wheat flours (Kulp et al), **54**
nutrient levels in wheat flour (Ranum), **70**
- Environment**
effects on oat phytic acid concentration (Miller et al), **189, 192**
- Enzymes**
oxidizing ascorbate; in flour, purification and characterization of (Grant and Sood), **46**
sensitive test for α -amylase in flour (Rubenthaler et al), **212**
- Erratum**
Hargin et al (Vol. 57, p. 321), **450**
- Extrusion cooking**
twin-screw; of manioc starch, amylose-lipid complex formation (Mercier et al), **4**
- Fatty Acids**
of Riso 1508 and normal barley (Bhatty and Rossnagel), **382**
- Fermentation**
of black gram/rice blend; changes in oligosaccharides during (Reddy and Salunkhe), **356**
time extended to reduce phytate in breads (Harland and Harland), **226**
- Fiber**
dietary; in breads containing gobo residue, gobo holocellulose, and konjac powder (Nagai et al), **307**
- Flour**
calcium, magnesium, and zinc content (Emodi and Scialpi), **1**
changes in pentosans as a result of dough mixing and oxidation (Yeh et al), **144**
chlorinated and heat-treated; starch gelatinization dynamics studied by small-angle light scattering (Bhuiyan and Blanshard), **262**
composite; measurement of hydration capacity of (Rasper and deMan), **27**
composite; starch effect on rheology (Rasper and deMan), **331**
cowpea and field pea protein, in baking powder biscuits, replacement of milk protein with (McWatters), **223**
defatted and reconstituted wheat; bread-making response to shortening (Chung et al), **106**
dough strength requirements, effect of sheeting (Moss), **195**
dual-purpose mill for (Shuey et al), **295**
effect of storing and heating nondefatted and defatted for cakes (Johnson and Hosenev), **92**
enzyme oxidizing ascorbate in, purification of (Grant and Sood), **46**
fortified; distribution of vitamin A in (Parrish et al), **284**
free fatty acids, antioxidant effect of ascorbic acid on (Grant and Sood), **231**
fumaric acid reaction with gluten during dough mixing (Sidhu et al), **159**
insect infestation in (Holmes), **371**
levels of nutrients in (Ranum), **70**
lupine; nutritional value and amino acid content of bread (El Dash et al), **9**
mechanism by which lipoxigenase increases mixing tolerance (Hosenev et al), **163**
millet; composition (Lorenz et al), **16**
mineral analysis of (Lorenz et al), **65**
navy bean; amino acid and mineral profile of air-classified (Patel et al), **123**
nutrient composition of (Kulp et al), **54**
nutrient levels in internationally milled wheat (Ranum et al), **361**
pea; fortification of pasta with (Nielsen et al), **203**
quality assessment of Japanese noodle (Oda et al), **253**
with various bread-making quality with or without flour lipids (Chung et al), **111**
vitamin analysis of (Keagy et al), **59**
wheat; gluten protein effects on rheological and baking properties of (Preston and Tipples), **314**
wheat; reaction of ^{14}C -cysteine with water soluble under UV light (Sidhu et al), **380**
- Germinability**
of high-moisture shelled corn; effect of microwave heating on (Nofsinger et al), **373**
- Germination**
of black gram; oligosaccharide changes during (Reddy and Salunkhe), **356**
effect on physicochemical and bread-baking properties of legume flours and starches (Morad et al), **390**
of faba beans in U.S. and Egyptian balady breads (Finney et al), **267**
- Gliadin**
high molecular weight; subunits identical to ethanol-soluble reduced glutenin subunits (Bietz and Wall), **415**
- Gluten**
binding of water soluble pentosans to (Sidhu et al), **380**
fumaric acid reaction with, during dough mixing (Sidhu et al), **159**
heat treatment effect on protein solubility and viscoelastic properties of (Jeanjean et al), **325**

- protein interactions and structure (Bietz and Wall), **415**
wheat; thermal stability of (Eliasson and Hegg), **436**
- Glutenin**
ethanol-soluble subunits identical to high molecular weight gliadin (Bietz and Wall), **415**
protein solubilization with soaps, relation to bread-making properties of wheat flours, communication to editor (Kobrehel and Matignon), **73**
- Grains**
PNMR analysis of moisture content (Miller et al), **126**
- Indian ricegrass**
quality characteristics of (Stearns and Booth), **438**
- Insects**
damage in preharvest corn (McMillian et al), **83**
role in aflatoxin contamination of preharvest corn (Lillehoj et al), **255**
- Instruments and instrumentation**
balance rheometer to measure dynamic viscoelastic properties of wheat flour dough (Bohlin and Carlson), **174**
Do-Corder for investigating rheological properties of heated dough (Tanaka et al), **169**
dual-purpose mill for flour and granular products (Shuey et al), **295**
extensograph to measure rheological changes in cracker sponges (Pizzinatto and Hosney), **185**
gasograph to measure fermentation rates of flour and additives (Rubenthaler et al), **212**
methods of recording dough development curves from electronic recording mixers (Voisey and Klock), **442**
- Kidney bean**
trypsin inhibitors of (Ellenrieder et al), **25**
- Lactic acid**
in rye sour, gas chromatographic method for determination (Kratochvíl and Holas), **209**
- Legumes**
germination effect on physicochemical and bread-baking properties of (Morad et al), **390**
- Lipids**
amylose-lipid complex formation by twin-screw extrusion cooking of manioc starch (Mercier et al), **4**
bread-making response to lipid removal in various flours (Chung et al), **111**
constituents in wheat, evaluation (Davis et al), **178**
deterioration in pearl millet (Lai and Varriano-Marston), **275**
extraction from defatted and reconstituted wheat flours (Chung et al), **106**
flour; effects of removal on cookies structure (Clements), **445**
free and bound; in pearl millets (Lai and Varriano-Marston), **271**
of Riso 1508 and normal barley (Bhatty and Rosnagel), **382**
- Lipoxygenase**
effect on mixing tolerance (Hosney et al), **163**
- Lupine**
fortified bread; nutritional value and amino acid content (El Dash et al), **9**
- Methods**
baking; to evaluate flour quality for rotary-molded cookies (Gaines and Tsen), **429**
for choline estimation in plant protein (Atwal et al), **368**
computer factor analysis for fractioning barley proteins (Martens and Bach Knudsen), **97**
for determination of acetic and lactic acid in rye sour (Kratochvíl and Holas), **209**
to determine starch gelatinization in bakery foods (Varriano-Marston et al), **242**
differential scanning calorimetry on gluten (Eliasson and Hegg), **436**
fluorescence determination of uric acid in flour (Holmes), **371**
hydration capacity measurement of wheat flour and starch mixtures (Rasper and deMan), **27**
for isolation and analysis of cell wall material from cereals (Selvendran and Du Pont), **278**
laboratory for saltine crackers (Pizzinatto and Hosney), **249**
- measurement of moisture in cereal grains (Miller et al), **126**
to produce high extraction faba bean cotyledon flour (Morad and Finney), **230**
pyrolysis-gas chromatography for oligosaccharide reactions (Donnelly et al), **388**
for quantitative determination of starch (Fleming and Reichert), **153**
reducing agent effect on zein preparation (Tsai), **288**
reflectance colorimeter; comparison with pigment extraction for evaluating semolina color (Johnston et al), **247**
for segregation of aflatoxin-contaminated corn (Huff), **236**
of separation of histological components of rice and amino acid analysis for protein characterization (Bradbury et al), **133**
sodium hydroxide to distinguish red from white common, club, and durum wheats (Lamkin and Miller), **293**
of wheat hardness (Obuchowski and Bushuk), **421**
zein determination in corn (Esen), **129**
- Microwave heating**
effect on high-moisture shelled corn (Nofsinger et al), **373**
- Millet**
mineral content and location in (Varriano-Marston and Hosney), **150**
pearl; changes during storage (Lai and Varriano-Marston), **275**
pearl; characterization of starch from (Beleia et al), **300**
pearl; lipid content and fatty acid composition of free and bound lipids in (Lai and Varriano-Marston), **271**
proso; milling characteristics and nutritive value of (Lorenz et al), **16**
proso; rheological properties and food applications of flours (Lorenz and Dilsaver), **21**
- Milling**
comparison of mills (Black et al), **402**
effect on cooking time of sorghum grain (Ali and Wills), **386**
faba bean, simple method (Morad and Finney), **230**
first break grinding of Canadian wheat, factors affecting (Hsieh et al), **217**
millet; characteristics of (Lorenz et al), **16**
to produce 70% extraction durum wheat semolina (Matsuo and Dexter), **117**
semidwarf and standard height HRS wheat comparisons (McGuire et al), **32**
- Minerals**
in air-classified navy bean flour (Patel et al), **123**
analysis of commercially milled wheat flours (Lorenz et al), **65**
effect on bread qualities (Emodi and Scialpi), **1**
in internationally milled wheat flours (Ranum et al), **361**
levels to add to wheat flour (Ranum), **70**
in pearl millet (Varriano-Marston and Hosney), **150**
- Moisture**
PNMR method for cereal grains (Miller et al), **126**
- Nutrition**
bread fortified with micronutrients (Emodi and Scialpi), **1**
nutrient levels in internationally milled wheat flours (Ranum et al), **361**
of sweet lupine-fortified bread (El Dash et al), **9**
of wheat flours, enrichment (Kulp et al), **54**
of wheat flours, vitamin analysis (Keagy et al), **59**
- Oats**
enzymic analysis of beta-D-glucans in (Prentice et al), **198**
nonstarchy polysaccharide comparison in (MacArthur and D'Appolonia), **39**
phytic acid concentration in, soil phosphorus, environmental, and cultivar effects (Miller et al), **189, 192**
- Oligosaccharides**
reactions of, pyrolysis-gas chromatography (Donnelly et al), **388**
- Oxidation**
antioxidant effect of ascorbic acid on flour free fatty acids (Grant and Sood), **231**
changes in pentosan as a result of (Yeh et al), **144**
- Pasta**
fortification of, with pea flour and air-classified pea protein concentrate (Nielsen et al), **209**
with proso millet flours (Lorenz and Dilsaver), **21**
relation between characteristics of wheat starch and eating quality of

- Japanese noodle (Oda et al), **253**
 spaghetti-making quality; comparison of experimentally and commercially milled wheat semolina (Matsuo and Dexter), **117**
- Peanuts**
 trypsin inhibitors of (Ellenrieder et al), **25**
- Pentosans**
 changes in as a result of dough mixing and oxidation (Yeh et al), **144**
- Phytic acid**
 concentration in oats, soil phosphorus, environmental, and cultivar effects (Miller et al), **189, 192**
- Polysaccharides**
 nonstarchy; comparison in oats and wheat (MacArthur and D'Appolonia), **39**
- Protease**
 effect from *Saccharomyces carlsbergensis* on dough strength (Woods et al), **290**
- Protein**
 amino acid analyses of, of histological components of high-protein rice (Bradbury et al), **343**
 barley; fractioning by computer factor analysis (Martens and Bach Knudsen), **97**
 characterization of rice proteins by amino acid analysis (Bradbury et al), **133**
 colorimetric method for zein in corn and potential in screening (Esen), **129**
 content; effect on wheat hardness (Obuchowski and Bushuk), **426**
 heat treatment effect on protein solubility of wheat gluten and viscoelastic properties (Jeanjean et al), **325**
 milk; replacement with protein from cowpea and field pea flours in baking powder biscuits (McWatter), **223**
 pea concentrate, for fortification of pasta (Nielsen et al), **203**
 solubilities; aging of soybean globulins (Nash and Wolf), **233**
 solubility with soaps, relation to bread-making properties of wheat flours, communication to editor (Kobrehel and Matignon), **73**
 soy; analysis by disc gel electropherograms (Anderson), **155**
 wheat; N-terminal amino acid sequences (Bietz and Wall), **415**
- Protein isolate**
 baking properties of oilseed protein and isolates produced with industrial membrane systems (Khan and Lawhon), **433**
 vegetable; production and functionality of (Vose), **406**
- Pyrolysis**
 gas chromatography; reactions of oligosaccharides (Donnelly et al), **388**
- Rheology**
 changes during fermentation of cracker sponges (Pizzinatto and Hoseney), **185**
 Do-Corder characteristics of heated dough in the presence of oxidants (Tanaka et al), **169**
 dynamic rheological properties of wheat flour dough, dependence on mixing time (Bohlin and Carlson), **174**
- Rice**
 amino acid analyses of proteins of histological components of (Bradbury et al), **343**
 histological component separation methods and amino acid analysis for characterization of proteins (Bradbury et al), **133**
 volumetric reduction of, during drying (Steffe and Singh), **148**
- Scanning electron microscopy**
 of α -amylases from barley malt (MacGregor and Ballance), **397**
 oxidant effect on starch gelatinization (Tanaka et al), **169**
- Semolina**
 color; comparison of pigment extraction and reflectance colorimeter methods for evaluating (Johnston et al), **247**
 wheat; comparison of experimentally and commercially milled for spaghetti making (Matsuo and Dexter), **117**
- Shortenings**
 encapsulated with oilseed proteins (Baker et al), **257**
- Sorghum**
 effect of milling on cooking time of (Ali and Wills), **386**
 soluble sugars of (Subramanian et al), **440**
- Soybeans**
 analysis of proteins by disc gel electropherograms (Anderson), **155**
 globulins; aging of, solubility effect in buffer (Nash and Wolf), **233**
 immunological behavior of protein fraction from lectin (Bracciali et al), **367**
 inactivation of trypsin inhibitors in aqueous soybean extracts by direct steam infusion (Johnson et al), **376**
 quality changes during storage (Saio et al), **77**
 trypsin inhibitors of (Ellenrieder et al), **25**
- Staling**
 baking procedure and surfactant effect on pasting properties of bread crumb (Morad and D'Appolonia), **239**
 of bread; effect of surfactants and baking procedure on water-solubles and soluble starch (Morad and D'Appolonia), **141**
 of bread; factors affecting bread softness and firming rate (Maleki et al), **138**
 bread; X-ray diffraction studies of (Dragsdorf and Varriano-Marston), **310**
- Starch**
 amylogram of commercial wheat variety (Oda et al), **253**
 baking procedure and surfactant effect on pasting properties of bread crumb (Morad and D'Appolonia), **239**
 in bread crumb; effect of surfactants and baking procedure on (Morad and D'Appolonia), **141**
 characterization of, from pearl millets (Beleia et al), **300**
 debranching wheat amylopectin (Atwell et al), **12**
 gelatinization; determination in bakery foods (Varriano-Marston et al), **242**
 gelatinization dynamics; by small-angle light scattering of flours (Bhuiyan and Blanshard), **262**
 granule size; rheology of starch-wheat flour doughs (Rasper and deMan), **331**
 granules from normal and waxy barley cultivars; hydrolysis of by α -amylases from barley malt (MacGregor and Ballance), **397**
 legume; germination effect on physicochemical and bread-baking properties of (Morad et al), **390**
 legume; production and functionality of (Vose), **406**
 manioc; twin-screw extrusion cooking of, amylose-lipid complex formation (Mercier et al), **4**
 measurement of hydration capacity of (Rasper and deMan), **27**
 oxidant effect on gelatinization (Tanaka et al), **169**
 oxidation by chlorine treatment of cake flour (Johnson et al), **94**
 quantitative determination method of (Fleming and Reichert), **153**
- Storage**
 effect on fortified flours (Parrish et al), **284**
 granary; mycotoxin and odor formation in cereal grain during (Abramson et al), **346**
 of pearl millet meal; changes during (Lai and Varriano-Marston), **275**
 soybean quality changes during (Saio et al), **77**
- Sugar**
 effect of on layer cakes (Koepsel and Hoseney), **49**
 soluble; of sorghum (Subramanian et al), **440**
- Surfactants**
 effect of on pasting properties of bread crumb (Morad and D'Appolonia), **239**
 effect on water-solubles and soluble starch in bread crumbs (Morad and D'Appolonia), **141**
 sugar cookie quality using fortified cottonseed flour (Vecchionacce and Setser), **303**
- Triglyceride**
 deposits in starch endosperm of wheat (Hargin et al), **320**
- Trypsin inhibitors**
 inactivation of in aqueous soybean extracts by direct steam infusion (Johnson et al), **376**
 thermal inactivation of (Ellenrieder et al), **25**
- Ultrafiltration**
 baking properties of oilseed protein and isolates produced with industrial membrane systems (Khan and Lawhon), **433**

production and functionality of starches and protein isolates from legume seeds (Vose), **406**

Viscoelasticity

of gluten; heat treatment effect (Jeanjean et al), **325**

Vitamins

analysis of commercially milled wheat flours (Keagy et al), **59**

distribution in fortified flours (Parrish et al), **284**

effect on bread qualities (Emodi and Scialpi), **1**

in internationally milled wheat flours (Ranum et al), **361**

levels to add to wheat flour (Ranum), **70**

Wheat

cereal alpha-amylase; nephelometric method for determining (O'Connell et al), **411**

commercial variety used for noodle product in Japan (Oda et al), **253**

comparison of pigment extraction and reflectance colorimeter methods for evaluating semolina color (Johnston et al), **427**

enzymic analysis of beta-D-glucans in (Prentice et al), **198**

first break grinding of, factors affecting (Hsieh et al), **217**

flours; mineral analysis (Lorenz et al), **65**

flours; nutrient levels in (Kulp et al), **54**

flours; vitamin analysis in (Keagy et al), **59**

germ; immunological behavior of protein fraction from durum and soft wheat germ (Bracciali et al), **367**

hardness; comparison of methods of evaluation (Obuchowski and Bushuk), **421**

hardness; effects of debranning and protein content (Obuchowski and Bushuk), **426**

nutrient composition of, lipid constituents (Davis et al), **178**

protein sequences reveal gluten structure (Bietz and Wall), **415**

semidwarf and standard height HRS comparisons (McGuire et al), **32**

semolina; comparison of experimentally and commercially milled for spaghetti making (Matsuo and Dexter), **117**

sodium hydroxide to distinguish red from white common, club, and durum (Lamkin and Miller), **293**

triglyceride deposits in starch endosperm of (Hargin et al), **320**

Zein

in corn, colorimetric method for determination (Esen), **129**

fractionation by ion-exchange chromatography, communication to editor (Esen), **75**

reducing agent effect on preparation (Tsai), **288**

Zinc

bioavailability estimate in breads (Harland and Harland), **226**