

Key Word Index

The key word index is created directly and automatically from the submitted abstracts. Efforts have been made to make this index consistent; however, error from author entry contributes to inaccuracies. Abstract numbers preceded by M are Monday posters, numbers preceded by T are Tuesday posters, numbers preceded by W are Wednesday posters; all other numbers indicate oral abstracts.

A

Aberdeen Angus breed, M80
abortion, M335
abortion risk factors, M335
absorption ability and mucosal immunity, W225
academia, 104
academic programs, 896
accidents, 944
accuracy, 789
acetate, W354, 356
acetate phthalate cellulose, 954
 β -acid, M340, M341
acid insoluble ash, 736
acid resistance, 1085
acid-adapted, M101
acid-base balance, M54
acid-binding capacity and pH, 394
acidification, 392
acidifier, W208, 395
acidity, 818
acidosis, M16, T398, W422, 731, 735, 1146
acoustic emission, W64
activated carbon, W243
activity, W335, 905, 1020
activity monitor, 248
acute phase proteins, 749
acute-phase response, T263
acyclic, W286
ad libitum intake, 1041
adaptation, M38, 1145
additive, M98, M348, M356, M360, T214, T215, T338, T359, 3
additive covariance matrix, 73
adhesin, 63
adhesion, 761
ADICP, 461
ADIN, M447
adipocyte, 605, 679, 823
adipocyte cellularity, 16
adipocyte differentiation, 824
adipocyte size, W150
adipogenesis, W151, 679, 730, 826
adipogenic genes, 825
adiponectin system, T257

adipose, T160, 210, 213, 822, 1033
adipose tissue, M277, T255, T256, W152, 387, 636, 1129
adjustment factor, W31, W32
ADL, 43
adrenal, M18
adult goats, T464
aerobic culture, M45
aerobic stability, W135, W139, 818
aflatoxin, T286, W105, 986, 987, 1142
aflatoxin M1, T71
African oil palm, W191
Afshari ewe, W439
AG*IDEA, 896
age at first calving, W27, W28
aged offspring, 1131
aggregation, M190, W74
aggression, 709, 710
AGR, AMR, RGR, T135
agricultural byproducts, W107
agriculture degree, 227
agrindustrial residues, T124
AI, 79, 80, 842, 843, 844
air emission, 541
air velocity, W324
Albizia lebbeck, W109
albumen, W232
alcoholic fermentation, W139
aldo-keto reductase, 525
alfalfa, M112, M113, T127, W115, 100, 564
alfalfa hay, 462
alfalfa hay quality, M448
alfalfa haylage, W130
alfalfa leaves, W132
alfalfa selection, W131
alfalfa silage, W128, W328, 814
algae, M265, T195
algal biomass, 245
alkali treatment, M386
alkaline phosphatase activity, T140
alkaloid, M121, M122
alkane, M445, 891
alkylation, T121
allelic profiling, W46
allergy, 957
Allzyme SSF, 669, 1111
alternative, 1077
alternative dewormer, 756
alternative fuel, 811
alternative housing, 1024
alternative lengthening, 921
alternative poultry, M102
ambient temperature, M314
AME, 338, 683
AME_n, 686, 1111
amendment, 539
amino acid, M134, M205, M213, M218, M221, M223, M226, M228, M233, M234, M448, T211, T249, T342, T420, T425, T441, T444, T454, W271, 6, 139, 142, 143, 144, 145, 355, 427, 490, 491, 493, 664, 691, 769, 1063, 1104
amino acid digestibility, T242, T429, 668, 686
amino acid digestibility methods, M220, M222
amino acid metabolism, T253
amino acid requirement, 138, 354
amino acid standardized ileal digestibility, 667
 γ -aminobutyric acid, 220
ammonia, T444, W321, W323, W327, W332, W369, 454
ammonia emission, W322, W331
ammoniation, T121
amniotic fluid, T1
AMPK α , W160
 α -amylase, W240
amylase, 669
amylopectin to amylose ratio, W434
anaerobic digestion, 237
anatomy, 228
androgen, 113
anemia, 755
angiogenesis, 477
angiotatin, M173
angiotensin-I-converting-enzyme, T79
Angus, W301, 590
Angus cattle, 72
Angus cows, T33
animal agriculture, 84
animal based measures, 52

- animal care, 35
 animal health, 463
 animal industry, 1099
 animal performance indexes, W303
 animal production, 606
 animal research, 35
 animal roles, 1069
 animal sciences, 1072
 animal trials, W52
 animal waste, 547
 animal welfare, 32, 35, 53, 54, 239, 607, 934
 annual ryegrass, 1043
 anterior pituitary, 704
 anthelmintic, 756
 anthelmintic resistance, T163
 anthocyanin-accumulating alfalfa, M411, 460
 antibacterial peptide, M56
 antibiotic, W102, 464, 465, 1077, 1087
 antibiotic alternative, M229, T142, 346
 antibiotic growth promoter, 88, 107, 973
 antibody, W11, 62
 anticarcinogenic, 947
 antigen, M60
 antimicrobial, W99, W101
 antimicrobial activity, 982
 antimicrobial peptide, W215, W241, 765
 antimutagenic activity, W56
 antioxidant, T239, W108, W173, W180, W409, 128, 375, 698, 699, 872, 970, 981, 984, 990, 1081, 1082
 antioxidant activity, M384
 antioxidant enzymes, 343
 antioxidant function, 1083
 antioxidant status, M253, 976
 antral follicle, M296
 anxiety, 414
 apoptosis, T256, 65
 apparent conversion, 148
 apparent digestibility, W450
 apparent ileal digestibility, M218
 apparent metabolizable energy, 667
 appetite, W141, 5
 apple, M345
 apple byproduct, T404
Ara ararauna, 358
 arachidonic acid, 310
Arachis glabrata, W443
 arginine, M211, M217, T61, W360, 9, 19, 175, 272, 310, 1118
 arginine vasotocin, 708
 aroma compounds, T76
 aroma profile, 797
 artificial insemination, M327, W440
 artificial sweetener, 1120
 ascites, T43, W296
Aspergillus, W77
Aspergillus niger, T387
 aspiration pressure, T280
 assessment, M98
 associated determinants, 589
 association, 772
 Astroturf, 258
 asynchronous, 902
 attitudes, W94
 auction market, 1008
 auction market price, 1009
 audits, 54
 Austra-White chicken, 974
 author, 102
 autoimmunity, 603
 autolysate, W8
 automated feeder, W167, W168
 automated milking, M51
 available P, T213
 average daily gain, T358, W337
 average gain, M359
 avian Dlk1, T145
 avian immunity, M140
 avian influenza, M56, M305
 avian influenza virus, M138, 649
 avian paramyxovirus, 649
 aviary systems, 259
 Avizyme1502, 339
 Awassi lambs, 894
- B**
- B cells, M61
 BAC library, T403
Bacillus, 90
Bacillus amyloliquefaciens, 978
Bacillus licheniformis, T204, T227
Bacillus subtilis, M320
Bacillus subtilis C-3102, 192
Bacillus subtilis natto, W410
 backcross, 437
 backgrounding, M168, M169
 bacon, 676
 bacteria, T325, T362, W60, W63, W415, 10
 bacterial diversity, T16, T378
 bacterial growth, W54
 bacterial protein synthesis, 743
 bacteriology, W44
 bacteriophage, W64
 bahiagrass, 97
 balanced protein, 492
 bale wrapping, W129
 Baluchi sheep, T445
 Baluchi sheep, M458
 bamboo vinegar, M243
- barley, M407, M428, W218, 101, 351, 1032
 barley grain, M340, W393, W404
 barley meal, W419
 batch culture, M381, T366, T367
 battery cages, 256
 bax, M42
 Bayesian estimation, 73
 Bayesian inference, 278
 Bayesian methods, W40, W41
 bcl-2, M42
 beak trim, 261
 bed nucleus of stria terminalis, 708
 bedding, W87, 263, 400
 beef, M10, M85, M153, M159, M160, M171, T14, T167, T168, T174, W146, 80, 113, 321, 550, 733, 783, 845, 1033, 1038, 1049
 beef bull, 789
 beef calves, 774, 1002, 1005
 beef cattle, M16, M21, M47, M75, M78, M81, M86, M95, M150, M154, M161, M164, M281, M415, M424, T32, T166, T263, T265, T273, W163, W302, W305, W306, W314, W340, W342, W344, W347, W348, W351, W359, W360, W372, W374, W376, 16, 31, 67, 70, 78, 205, 206, 378, 455, 548, 556, 630, 634, 636, 734, 735, 738, 768, 770, 779, 1006, 1040, 1042, 1043
 beef cow, T25, T264, T268, T272, T296, W309, W366, 11, 380, 778, 842, 844, 846
 beef heifer, M300, T27, T271, 27, 114, 843, 1045
 beef palatability, M167
 beef production, W310, W362, 1011
 Beef Quality Assurance, 1008, 1009
 beef steers, W161, 389, 1031
 beef temperament, 787
 beef tenderness, T170, T173
 behavior, M4, M6, M10, M193, M311, M459, T6, T7, T11, T458, W94, W220, 21, 246, 259, 412, 413, 415, 581, 582, 586, 718, 862, 903, 904, 906, 908, 913, 933, 937
 behavior stereotype, M13
 beneficial bacteria, 89
 benzoic acid, T253
 bermudagrass, M332, M367, W371, 100
 bermudagrass hay, 1048
 best management practices, W88, 42
 beta-2-microglobulin gene, W199
 beta-glucan, 945
 beta-hydroxybutyrate, 1034

- betaine, M133, W414
 beverage, T104
 BHBA, T317, 597
 biallelic expression, T145
 bifidobacteria, W58, W65, 134, 135, 626
Bifidobacterium, W67
Bifidobacterium animalis ssp. *lactis*, W46
 bile acids, 311
 bilingual, 805
 bioactive peptide, M178, T79
 bioactivity, 947
 bioaerosols, 446
 bioavailability, W224, 514
 biochemical reactions, 684
 biodiesel, M265, W458
 biodiesel byproducts, W345
 biodiesel co-products, 27
 bioethanol, M444
 bioethanol co-products, M447, T412
 bioethics, 32
 biofilm, W57, 951
 biofuel, T405, 180
 biofuel production, 547
 biohydrogenation, T446, 37, 746
 biological assay, 869
 biological control, W10
 biological transport, 312
 biological wool harvest, M461
 bioluminescence imaging, M296
 biomarker, M99
 biomass, 156
 biometrics, W162
 biometry, T470
 biophotonic, 1090
 biophotonic imaging, 1095
 Bioplus 2B, T232
 biosensor, M305
 biostimulation, 856
 bio-surfactant, T205
 biotechnology, 24
 biotelemetry, 1047
 biotin, T383, 880
 birds, W290, 707
 birth parity, T180
 birth weight, M458, T49, W233, 925
 birth weight variation, T178
 bison, 530
 black tea, W180
 blastocyst, 996
 bleach, M175, M176
 blood, M329, T393, W378, W387, 217
 blood calcium, W295
 blood chemistry, W262
 blood factors, M34, 1075
 blood flow, M217
 blood lipid, T440
 blood meal, T415
 blood metabolites, T303
 blood parameter, M402, T37, 193
 blood parameters and intestinal micro-flora, M251
 blood serum, T464
 blood trait, M314
 blood urea, W372
 blood urea nitrogen, M284, T436
 Bloom's taxonomy, 1067
 Bluchi female lambs, M401
 bmr, W111, 47
 boar, M203
 body composition, T136, T151, T471, 752
 body condition, T441
 body condition score, W273, W432
 body fat, M224
 body measurements, W343, 125
 body protein, M223, M224
 body reserves, W261
 body size, 930
 body temperature, T2, 735, 860
 body weight, T137
 Boer, T462, T463
 Boer goat, T53
 bone, T144, W230, W265
 bone ash, 341, 512
 bone breaking strength, T195
 bone characteristic, T142
 bone development, 646
 bone quality, 257
 bone strength, W268
 bone-in cuts, T165
 boneless cuts, T164
 borate transporter (NaBC1, SLC4A11), W238
 borax, W318
Bos indicus, 854, 1121
Bos indicus heifers, T267
 botanical composition, 11, 94
 bovine, M17, M92, M121, M144, T15, T23, T154, T156, T283, T299, W23, W292, W363, 251, 887, 960, 996
 bovine lactoferricin, 982
 bovine mammary epithelial cell, W78, W196
 bovine mammary gland epithelial cells, M143
 bovine mammary tissue, 468
 bovine milk casein, W79
 bovine milk whey protein, W80
 bovine preadipocyte, W153
 bovine respiratory disease, M26, M47, 49, 422, 768, 769
 bovine satellite cells, W160
 bovine semen, 170
 bovine spongiform encephalopathy, 866
 bovine tuberculosis, 55
Brachiaria brizantha, T130
 Brahman, 781
 brain damage, 262
Brassica spp., T116
 breast meat, 328
 breed, M31, M338, T164, T337, T451, 18, 166, 388, 592, 913, 932
 breed of dam, W307
 breed of sire, W307
 breeder, M236, M237, T287, 698
 breeder effects, M137
 breeder nutrition, 177
 breeding performance, M330
 breeding value, M83
 breeding value correlations, 929
 brewer grains, W441, W442
 brewers-grade rice, W462
 brines and marinades, W98
 broiler, M29, M48, M49, M136, M206, M207, M210, M212, M226, M229, M231, M238, M249, M250, M253, M268, M307, M312, T8, T142, T144, T188, T189, T197, T205, T206, T207, T208, T209, T210, T211, T229, T233, T241, T242, T243, T295, W6, W14, W18, W202, W203, W205, W206, W207, W252, W296, W324, 137, 139, 141, 143, 146, 173, 174, 182, 183, 273, 326, 328, 332, 335, 341, 343, 344, 353, 362, 373, 443, 499, 500, 501, 502, 506, 512, 514, 515, 516, 517, 518, 539, 581, 585, 586, 587, 668, 670, 671, 684, 699, 700, 970, 972, 973, 978, 985, 1013, 1075, 1078, 1104, 1109, 1110, 1111, 1114
 broiler breast meat, 372
 broiler breeder, M205, M321, T141, T196, T284, 176, 187, 191, 194, 195, 196, 710
 broiler breeder age, 190, 513
 broiler breeder efficiency, M323
 broiler chick, M34, M254, T201
 broiler chick intestine, T140
 broiler chicken, M204, T187, W213, W225, 142, 180, 266, 336, 359, 652, 943
 broiler fillets, 329, 330
 broiler house, 441
 broiler immune response, 658
 broiler meat, T185, W13
 broiler nutrition, M273

broiler performance, W22, 138, 265, 331, 509, 971
broiler strain, T148
brown egg hens, M214
brown midrib, W112, 453
Brown Swiss, 433
Brown Tsaiya duck, M315
browning, T81
browse species, T132
bTEFAP pyrosequencing, W357, 1048
buffalo, M416
buffer, T380
buffering capacity, W47
bulk density, M385
bulk tank milk quality, T334
bull, W384, 923
bull AI, 170
bull calves, W313
bull fertility, W30
bull inflammation, 420
bull spermatozoa, 989
bulldam bias, 619
burnt flavor, 793
bursa of Fabricius, 648
business skills, 1068
buttermilk, M190, W74
butyrate, T293
butyric acid, W123, 972
BVD-PI, 772, 773
BVDV, M88, T14, 774
BW, 360
bypass fat, W339
bypass protein, M430
by-product, T407, T408, W421, 204, 557, 1040, 1135

C

C. jejuni, M101
Ca retention, T213
Ca²⁺-ATPase, 318
CAB acceptance, 1001, 1002
cage, 1094
caging, 542
calcium, T229, T317, W76, W230, W234, W266, 20, 521, 1107
calcium ascorbate, 322
calcium chloride, T226
calcium formate, 512
calcium lactate, T70
calcium lactate crystal, 127
calcium salts of fatty acids, T328
calcium soap, T421
calcium-fortified, W70
calf, M28, M31, M32, M120, T17, T311, T339, T340, T342, T345, T348, T358, T360, T337, W11, W87,

W164, W166, W167, W168, W169, W354, W367, W410, 240, 243, 264, 390, 393, 396, 398, 399, 640, 641, 662, 840, 850, 906, 912
calf digestion, T353
calf health, 928
calf milk replacer, 395
calf nutrition, T357, 244
calf performance, T349, T350, T351
calf removal, T264
calf starter, T350, T351, 483
calf survival, 928
California, T334
Calotropis, 307
calpain, M72, T176
calpastatin, M73, M90
calsporin, 192
calves' starter ration, 394
calving difficulty, 925
calving ease, M84
calving rate, W304
calving season, 855, 1031, 1037
CAM, T288
camel, 589
camel chymosin, 801
camelina meal, 690
Camelina sativa, 180, 503
CAMK2G, M142
cAMP, T283, T293
Campylobacter, W101, W103, W104, 440, 441, 443, 444, 540, 1088
Campylobacter jejuni, W100
candidate gene, 290, 924
canine, T55
cannibalism, 260
canola, M436
canola meal, 979
canola oil, T416
canola straw, M380
canopy structure, T133
capacitation, 992
caper, M283
CAPN1, M89
caprine, T131, T460
caprine mammary gland, 472
caprine production, W187
caprylic acid, 440
capsicum, 44
carbohydrate fractions, W333
carbohydrates, T370, T371
carbon dioxide, W73, 301, 1057
carbon footprint, 723, 1011
carbon sequestration, 1057
carbonation, T104
carcass, M128, M469, T139, W315, W346, W352, 780, 781, 1000
carcass and meat quality, M219
carcass and performance, 1002
carcass characteristics, M154, M168, M169, M464, T152, T453, W453, 30, 505, 753, 754
carcass composition, W356, W456, W464, 323
carcass dressing, W337
carcass fat, 828
carcass merit, 1004
carcass quality, M171, M225, W218, W466, 677, 1006
carcass traits, T179, T192, W385, W460
carcass ultrasound, M86
carcass yield, W255, W377, 506
career, 103
carob, T62, T63
carotenoids, M438
cartilage, 681
carvacrol:thymol, T244, 444
κ-casein, 803
casein glycomacropeptide, 759
casein supplements, W361
casein synthesis rate, W297
caseinomacropeptide, W54
caspase-3, M42
caspase-9, M42
cassava, M270, M271
cassava meal, W260, W339
castration, 779
castration and gender, T149
castration method, 420
cat, T59, T60
catenin, 113
catfish, M27
cation-anion balance, 885
cattle, M23, M26, M37, M38, M61, M118, M123, M127, M128, M292, M412, M413, M431, M432, M438, M445, M451, T24, T35, T257, T289, T314, T406, W16, W17, W140, W148, W162, W349, W386, W400, 3, 10, 22, 26, 51, 96, 98, 381, 388, 421, 422, 524, 552, 558, 559, 561, 592, 629, 635, 727, 737, 771, 786, 828, 848, 849, 873, 878, 910, 942, 1046, 1080
cattle orientation, M22
cattle producers, W93
CD14, 841
CD21, M91
CD8 memory T cell, T155
CD80, 650
c-di-GMP, 1085
CE, W82
cecal microbiota, 107

- ceftiofur, T308, T309
 cell culture, W235
 cell cycle regulation, M55
 cellular signal, 664
 CEM, 1096
Cenchrus ciliaris, M129
 censoring, 423
 centrifugation, T277
 cereal, T252
 cereal grain, 877
 cerebellar, T162
 cervical rib, 116
 CFS, M182
 characterization, T100, T227, W56
 charcoal, W216
 Charolais, M87
 Cheddar, M180, M187, 136, 795
 Cheddar cheese, T70, T87, 133, 792, 796
 Cheddar cheese ripening, 131
 cheese, M185, M456, T66, T69, T72, 299, 794, 952
 cheese flavor, 297, 298
 cheese microbiota, 298
 cheese microstructure, 798
 cheese pigments, T81
 cheese whey, M190, 306
 cheese whey composition, T84
 chelate, M46, 1017, 1018
 chemical characteristics, T95
 chemical composition, M170, T115, T132, T438, W107, W116, W132, 459, 791, 950, 979
 chemical fertilization, M421
 chemical properties, T183
 chemical treatments, M380
 chemotaxis, 38
 chewing, W436, 48, 565
 chewing activities, M406
 chewing behavior, T356, 875
 chick, M220, M251, M274, 347, 685
 chick bone development, 513
 chick embryo, 984
 chick length, W268
 chick quality, W268, 190
 chicken, T12, T20, T41, T42, T136, T146, T239, T255, T262, W222, W291, W294, 258, 268, 350, 369, 613, 650, 653, 714, 810, 980
 chicken CD40, M139
 chicken embryo, 643
 chicken IPAH, T44
 chicken leukocytes, M135
 chicken meat, W100
 chicken performance, M252
 chicory, T450
 childhood obesity, 222
 Chinese medical plants and extracts, 1083
 chlorella, M249
 chlortetracycline, M373, M374, M375
 chocolate milk, 221
 choice feeding, W219, W454
 cholesterol, M468, T26, W407
 cholesterol removal, T75
 choline, 380, 696, 884
 chromium, 878
 chronobiology, M13
 CIDR, T274, W285, W286, 163, 536, 843, 844, 856
 CIDR Co-synch, 778
 CIDR insert, T271, 842
 CIDR-Select, T27
 cinnamaldehyde, M343, M361, 273
 circadian rhythm, 582, 707
 citric acid, 332
 CLA, M394, W106, 169, 961, 1033, 1039
 claims, 628
 claw health, M375
 claw lesions, M333, 764, 1014
 clay enterosorbent, W244
 cleaning frequency, 1044
 clearance rate, W354
 climate, W404
 clinical mastitis, M45, W41
 clinical trial, 594
 clipped-haired cows, W184
Clostridium perfringens, M319, 241, 266, 353, 652
 clover, 100
 clutch sequence position, 361
 CNCPS, M383, W328
 CO₂ injection, M186
 coagulase-negative staphylococci, M43
 coat color, W301
 coated sodium butyrate, T243
 cobalt, M201, T297, W427
 coccidia, T40, W217, 653, 656
 coccidia vaccination, 348
 coccidiosis, M133, M307, 175, 342, 654, 655
 cockerel, T139, 94
 cocoa bean shell, 985
 coconut oil, M339, 214
 co-culture, W155
 co-ensiled, W353
 co-grazing, 95
 cold gelation, W70
 cold weather transport, 587
 coli, 594
 collaborative learning, T474
 collagen, T169, T186, 637, 638
 collagen turnover, T171, T172, 319
 collection method, 994
 collegiate equine activities, T472
 colonies, 445
 color, T29, W223, 136
 color stability, M167
 colostrum, T2, W80, 393, 401, 523, 838, 839
 colostrum replacer, T339
 colostrum supplement, 839
 commercial broilers, 464
 communication effectiveness, 229
 companion animals, 937
 competition, M6
 complexed trace minerals, M334
 compost bedded pack, 242
 compost bedded pack barn, W96
 composting, W97, 242, 866
 concentrate levels, 874
 concentrate proportion, T373
 concentrated efficiency, M414
 conception rate, W193, W277, W278
 condensed corn fermented extractives, 732
 condensed tannin, M196, M422, W384, 14
 condition, W176
 conditioning, W140, 456
 coneflower, W12
 confinement feeding, 632
 conjugated, W247
 conjugated linoleic acid, M136, M147, M163, M423, M453, T236, T439, T446, T461, W360, 133, 149, 224, 959
 constipation, W52
 consumer acceptance, 330
 consumer attitudes, W190
 consumer experiments, 611
 consumer preferences, 611
 continuous culture, M191, M422
 continuous fermenters, T363
 continuous recording, 1052
 control, M57
 conventional, 1036
 conventional semen, W288
 cooked cereal, W258
 cooking, T175
 cool water, 1092
 cooling, T29, 400
 copper, M374, M468, M469, T298, T465, W224, W225, W226, W231, 518, 519, 520, 548, 549, 554
 co-product, T226, W455, W458, 677, 678

- copy number variation, M138, T39
 core temperature, T335
 6307 corn, M245
 corn, M109, W247, W342, 687, 1032
 corn co-products, M216, 685
 corn DDGS, 199, 1140
 corn distillers dried grains with solubles, T353
 corn particle size, W423
 corn processing, 200, 201
 corn residue, 99, 1046
 corn silage, M107, M108, T126, T336, T426, T429, W114, W120, W121, W124, W125, W130, 452, 485, 563, 813, 817
 corn soybean meal, M228
 corn stalklage, 563
 corn stalks, 99
 corn starch, M400
 corn stover, M386
 corpus luteum, T270, 26
 correlation, M127
 correlation coefficient, W37
 corticosterone, 366, 705
 corticotrophin-releasing hormone, T263
 cortisol, M18, W274, 419, 771, 912, 1034
 cost, W303, W304
 cost-effectiveness, 275
 co-stimulation, M139
 costs, W305
 cotton meal, W442
 cottonseed, 385
 cottonseed hulls, M434, M435, 39
 cottonseed meal, M256, T241, T242
Coturnix coturnix japonica, T11
 cotyledonary vascular, 999
 COUP-TFII, 826
 cow, M11, M119, T256, T325, T326, W150, W284, 45, 168, 850, 851
 cow comfort, M7, 239
 cow genotypes, 907
 cow sheep goat milk, T97
 cow side, 250
 cow size, 857
 cow-calf, 782
 cow-calf systems, 1037
 CP, M321, W331
 CP and AA digestibility, T209
 CP level, W439
 CpG ODN, 955
 CPT1, 682
 CR2, M91
 cream cheese, T74, T75
 creep feed, M168, M169, W220, W454
 Creole cattle, T274
 Crohn's disease, 285
 crossbred, T331, 488
 crossbred cattle, W373
 crossbred cow, W273
 crossbred model, 430
 crossbred pig, T180
 crossbreed dairy cows, M410
 crossbreeding, 434, 435, 436, 437
 crowding stress, W468
 crude glycerol, W390
 crude mucin, W212
 crude protein, M228, W116, W337, 167
 crust-freezing, 1091
 cryopreservation, 989
 cubed hay, 455
 cull, T174
 cull beef cow, M158
 cull chickpeas, T453, W450
 cull cows, 322
 culling, 808
 cultural conflict, 1069
 culture, M70, W60, W61, W62, W63
 culture feed rate, T400
 culture media, W59
 culture PCR correlation, 276
 cumin, M353
 cumin essential oil, M252
 curriculum, 79, 81
 curve feeding, 495
 Cushing, 832
 cuticular wax, M126
 cutting time, T34
 CWT, 226
 cyanocobalamin, T383
 cyanuric acid, M93
Cynodon dactylon, T130
Cynodon spp., M438
 cystic ovarian disease, W40
 cytochrome P450, 525
 cytokine, M132, M134, M137, T21, T255, 652, 657, 771, 1076
 cytokine expression, T153
 cytotoxic activity, 765
- D**
- D3, 697
Dactylis, T114
 daily gain, M131, M414, W343
 daily weight gain, 504
 dairies, 864
 dairy, M192, T334, T336, W60, W84, W85, W92, W185, W425, 231, 232, 529, 805, 806, 862, 997, 1126
 dairy calf, M9, T343, T347, W1, W165, 39, 397, 487
 dairy cattle, M411, W33, W42, W275, 53, 286, 438, 615, 742, 884, 1061
 dairy cattle nutrition, W82
 dairy cost of production, 235
 dairy cow, M5, M6, M12, M52, M53, M93, M103, M201, M285, M299, M343, M392, M405, M408, M426, T269, T297, T308, T309, T315, T316, T324, T328, T333, T335, T369, T382, T384, T391, T392, T395, T396, T397, T398, T402, T410, T411, T434, W2, W3, W4, W5, W9, W34, W195, W279, W390, W394, W405, W416, W417, W424, W426, W427, 163, 164, 169, 171, 209, 212, 214, 246, 484, 560, 593, 595, 596, 715, 716, 720, 722, 739, 740, 814, 820, 821, 871, 886, 904, 1079, 1134, 1137
 dairy ewes, 885
 dairy farms, W391, W411
 dairy foods, M177, 222
 dairy goat, M13, M142, T454, T455, 725
 dairy heifer, M8, T346, W186, 95, 469, 568, 569, 570, 663
 dairy herds, T307
 dairy housing, 242
 dairy manure, W322
 dairy nutrition, T401, W428, 564
 dairy production systems, 632
 dairy protein supplements, W66
 dairy sheep, M344, M376
 dairy survey, W88
 dairy workforce, W86
 dam parity, T16
 data sifting, M81
 date palm leaves, M401, M402, M403
 daylength, 182
 days in milk, T306
 dbcAMP, 679, 680
 DCAD, 666
 DDGS, M433, T187, T188, T189, T190, T192, T193, T224, W269, W270, W308, 108, 485, 544, 549, 669, 671, 672, 673, 674, 675, 676, 686
 DDGS feeding value, T191
 DDGS supplementation, 1138
 deer, M329
 defensin, 657
 degradability, M113, M115, M194
 degradation, W375
 deiodinase 2, 365
 demographic characteristics, W190
 demonstration herds, M57
 demonstrations, 811
 denaturation, W72

- denaturing gradient gel by electrophoresis, M355
 denaturing gradient gel electrophoresis, 347
 density, W114
 dentition, M30
 deoxynivalenol, W247, 987
 depopulation, 601, 1012
 descriptive analysis, T103
 development, T313, 391, 777
 developmental programming, W341, 916
 dexamethasone, 469
 DFD, cold, T185
 DFM, M368, T157, 90
 DGGE, M276, W48, 123, 440, 728
 DGS, 553
 DHA, M162, T235, 122, 153, 154, 373
 diacetyl, T102
 diagnosis, M60, M63, T393
 diagnostic tests, 278
 diagnostics, 1098
 dialysis, W75, W76
 Diamond V XP, W428
 dibutyl phthalate, 958
 dielectric spectroscopy, 790
 diet, M167, M300, 111, 295, 349, 545
 diet formulation, 425
 diet optimization, 142
 diet physical form, M248
 diet switch, 1042
 dietary cation anion balance, T60
 dietary cation-anion difference, T389, 881
 dietary concentrate, T15
 dietary energy, 1100, 1109
 dietary fat, T410, T411, 147
 dietary fiber, M247, T138
 dietary immune modulation, 271
 dietary particle size, W212
 dietary phosphorus amount, 717
 dietary protein, M232, W298, W322, 214
 dietary selenium supplementation, 559
 dietary self selection, 184
 dietary supplementation, M147
 differentiation, W154, 822
 digesta, 1039
 digesta kinetics, T356
 digestibility, M212, M265, M360, M370, M382, M386, T57, T107, T133, T202, T208, T220, T221, T222, T223, T224, T356, T448, W121, W122, W210, W211, W244, W345, W353, W388, W404, W412, W446, W447, W455, 12, 200, 428, 455, 458, 491, 736, 816, 1139
 digestibility kinetics, 1050
 digestibility methodology, T199
 digestible energy, W260, 747
 digestible protein and amino acid, M204
 digestion, M412, W389, 385, 511, 567, 892, 1050, 1061
 digestive enzyme activity, T231
 digestive organ size, 509
 digestive system, 1078
 digital learning, 1071
 dilution of maintenance, 723
 dioxin, M315
 direct fecal PCR, 277
 direct-fed microbial, M319, M443, T250, T382, 89, 205, 206, 463, 1134
 disaccharidase, W204, 689
 disc diffusion, W334
 discrimination, T414
 disease, M27, M141, 691, 767
 displaced abomasum, W40
 distance, T469
 distance education, 227, 896, 902, 1071, 1072
 distillers dried grains, M464, 754
 distillers dried grains with solubles (DDGS), T194, 207, 670, 893
 distillers grains, M103, M306, M444, T366, W353, W382, 189, 203, 205, 546, 551, 659, 738, 1086, 1088
 distribution, 18, 92
 diurnal, M37
 diurnal variation, 496
 divergent selection, T37
 DM content, W124
 DM digestion, T367
 DM yield, M124
 DMI, 1030
 DNA bacterial, M276
 DNA extraction, T394
 DNA marker, 789
 DNA marker profiles, 249
 DNA quantitation, T163
 DNA sequencing, T130
 docility, 913
 docosahexaenoic acid, 23, 37, 835
 dog, T54, T56, T58, T61
 domestic duck, 253
 domestic fowl, 533
 Domiatti cheese, T71
 DON, W125
 Dorset ewes, M298, W289
 dose response, T21
 double interspiking, 176
 double-Ovsynch, 165
 dressing percentage, T188
- dried distillers grains, W371, 197, 198, 1003
 dried distillers grains with solubles, T361, T372, T412, T426, W319, 208
 dried grape pomace, W453
 dry ammoniation, W191
 dry cow therapy, M198
 dry dairy powder, W69
 dry matter, M111
 dry matter changes, 562
 dry matter digestibility, W191
 dry matter efficiency, 249
 dry matter intake, M418, T33, W385, W416, 15, 220, 429, 456, 1055
 dry period, M285, W432
 dry period length, 716
 dry period nutrition, T259
 dry season management, W445
 drying rate, W124
 drying-off, 903
 dry-off, W401, 470
 duckling, 193
 ducks, 600, 644
 duckweed, M317
 duration, 721
 DXA, W251
- ## E
- E. coli*, M28, W242, 761, 1090
E. coli K88, W214
E. coli O157:H7, M304, M306, 1085, 1086
 early deboned, 329
 early experience, 909
 early feeding, M34
 early lactation, 877
 early learning, 21
 early mortality, 599
 early weaning, T338, T347
 eartag, M331
 Eastern gamagrass, M124
 eating behavior, M106
 eating pattern, 733, 1038
 eCG, T265, T274
 ecology, W17
 economic analysis, W382
 economic crisis, W84
 economic efficiency, 971
 economic energy content, 703
 economic issues, 84
 economic value, 724
 economic viability, 576
 economics, 408, 773, 807, 888, 890
 economics of animal welfare, 1023
 EEG, 601
 effect, M348

- effective population size, T48
 efficiencies, W379
 efficiency, M128, 115, 1133
 effluent losses, T123
 egg, M257, M310, T196, W11, 377, 541, 1093, 1094
 egg antibody, 4
 egg economics, 1023
 egg nutrient composition, M317
 egg production, M215, M236, M258, M259, W227, W229, W256, W266, 179, 673, 1022, 1028
 egg quality, M260, M267, M271, M272, M311, T237, 188, 367, 375, 672, 1024
 egg quality characteristics, 690
 egg safety, 1024
 egg size, 188
 egg storage, M309, 186, 865
 egg storage incubation, 865
 egg storage time, 865
 egg taste, T245
 egg yield, M320
 egg yolk, T301, W250, 155
 egg yolk color, M261
 eggshell conductance, 362
 eggshell quality, M313
 Egyptian dairy products, W45
 eicosapentaenoic acid, 835
Eimeria, M29, 270
Eimeria spp., 335
 e-learning, 899
 electrical stimulation, 328
 electron beam irradiated, T413
 electron beam irradiation, T443
 elephant grass, M421
 ELISA, M58, T299
 Elusieve, W254
 embryo, M199, M298, T147, 645, 997, 998
 embryo survival, W287
 embryo temperature, 362
 embryo transfer, M19, T282, T322, W170, W277, W278, W300, 486
 embryo viability, 647
 embryogenesis, T288
 embryology, 810
 embryonic metabolism, M309
 emergence test, T10
 emission, W327
 emissions, W332
 emissions mitigation, 1025
 emotion, 934
 emotional state, T55
 empty body gain, M467
 empty body weight, M466, W373
 emu, 147
 emulsion, T69
 encapsulation system, M342
 Endangered Species Act, 631
 endometritis, 595, 1097, 1098
 endophyte, 402
 endotoxin, W16, W19, 1147
 endotoxin transport, 674
 energy, T456, W182, W412, 121, 342, 478, 644, 664, 729, 1013
 energy and protein, T201
 energy balance, T369, W275, 66, 827
 energy digestibility, 688
 energy intake, M197, T196
 energy metabolism, W165, W195, 160, 1056
 energy nutrients, M452
 energy partitioning, W399
 energy requirement, W219, 196
 energy reserve, T185
 enhancement, T174
 enrichment, 933, 936, 937, 939
 enteric methane emissions, 1136
 enteric viruses, W317
Enterobacter cloacae, 1082
Enterobacteriaceae, 446, 1092
 enteroendocrine cells, 1115, 1118
 enterolactone, W435
 enterotoxigenic *Staphylococcus* spp., W99
 entrepreneurialism, 1068
 environment, W26, 546, 812, 867, 1047
 environment parameters, 543
 environmental, 181
 environmental enrichment, 934
 environmental footprint, 1025
 environmental impact, W310, 723, 1011
 environmental issues, 84
 environmental protection, 809
 environmental samples, 57
 environmental temperature, W219, 196
 enzymatic activity, M441
 enzyme, M212, M417, T151, T187, T203, T205, T216, T219, T220, T224, T225, 140, 151, 332, 338, 454, 1110
 enzyme efficacy, 331
 enzyme supplementation, W321
 EPA, M162
 epidemiology, 766
 epidermal growth factor, M461
 epigenetics, 646
 epithelial cell, 475
 e-portfolios, 898
 equine, M122, W170, W171, W177, W178, W180, 354, 357, 829, 833, 835, 941, 1098
 equine chorionic gonadotropin, W282, 486
 equine pasture, W176
 equivalent model, 931
 ER stress, 468
 eradication, 1096
 ergot alkaloids, W292
 EROD, M315
 ESC, 117
Escherichia coli, 759, 1077
Escherichia coli O157:H7, 439
 essential amino acid deprivation, W297
 essential amino acids, 1054
 essential fatty acids, 122
 essential oil, M133, M238, M268, M349, M350, M353, M362, T401, W334, 40, 337, 353, 506, 654, 655, 656
 essential oil/eugenol, T373
 esterase, T403
 estradiol, W284
 estradiol cypionate, W281
 estradiol-17 β , W158, W161
 estrogen, 364, 472
 estrous cycle, M301, 763
 estrous synchronization, T264, T271, T310, 78, 845, 846, 847
 estrus, T272, W284
 estrus detection, W440
 estrus synchronization, 79, 856
 ETEC, W216
 ethanol, M409, T278
 ethanol co-products, W93
 ethanol extract, M357
 ethanol extraction, M358
 ether extract, W116
 ethics, 606
 European Union, M98
 European-Chinese pigs, W460, W466
 euthanasia, 610
 evaluation, M451, 618
 evaporative cooling, 722, 726
 everted sac, 695
 ewe lamb, M326
 ewe lambs, W452
 ewes, M286, M297
 excreta, W228
 excreta microbial count, W321
 excreta nitrogen, W321
 excretion, 545
 exercise, M21, 119
 exogenous enzyme cocktail, 331
 exogenous enzymes, T355
 exogenous proteolytic enzyme, M372, T372

exopolysaccharide, 129, 1084
exopolysaccharide-producing cultures, M184
exopolysaccharides (EPS), W57
exotic felids, T57
expansion, T321
experiential learning, T54, 1070
experimental method, M215
extended lactation, 724
extender, T277, T278
extension, W97, 81, 812
extraction, 800
extracts, M351, M352
extracts and secondary compounds, M354
extruded cotton and canola seeds, T442
extruded feed, 894
extrusion, M436, 675
extrusion, M437

F

facilities, W330
factors, T318
faculty development, 1071
fall, M118, T116
FAMACHA, W15
farm animal welfare, W94, 611
farm assessment, 52
farming system, 324
farms, W95
farrowing stall, T5
fasting length, 118
fat, T421, W146, W400, 151, 875
fat digestibility, T240, 152
fat production, 147
fat reduction, 297
fat supplementation, W399
fat thickness, T26, W368
fat-corrected milk, 249
fats, 146
fattening performance, 894
fatty acid, M159, M160, M163, M225, M304, M450, M456, M472, T175, T184, T235, T260, T434, T442, T447, W381, W459, 155, 209, 324, 377, 783, 784, 799, 873
fatty acid composition, 320, 1129
fatty acid profile, T29, T179, T452, 1040
fatty acid type, 872
fatty acids ratio, M157
fatty liver, 884
fear, T12, 584
feather meal, T422
feather pecking, T9, 260
fecal culture, 277
fecal output, 975

fecal progesterone, 530
fecal score, T338
FecB gene, T47
feed additive, W378, W429
feed alternatives, W93
feed behavior, 911
feed bunk space, M8
feed conversion, W391, W411
feed cost, W91
feed efficiency, M80, M85, M155, M156, M248, M431, T42, T420, W302, W372, 49, 66, 70, 71, 526, 813, 1034, 1057, 1140
feed enzyme, M405, T251, 108
feed fines, 700
feed form, W221
feed ingredients, M97
feed intake, M361, M404, T341, W208, W395, W469, 67, 68, 504, 762, 1123
feed management, M20
feed restriction, T326
feed science, 902
feed selection, M9
feeder gap, 701
feeder space, 701
feeding, W169, W347
feeding behavior, M15, M16, 44, 570, 907, 1055
feeding frequency, 105
feeding management, 864
feeding preferences, 456
feeding programs, W261
feeding rate, T345
feeding strategy, W362
feeding system, M474
feeding time, 179
feeding times, W165
feedlot, M21, M35, M155, M156, M164, M363, M371, M419, T32, T165, W359, W364, W365, W373, W379, W380, W381, 24, 51, 111, 203, 786, 1000, 1010, 1141
feedlot cattle, W385, 50, 207, 439, 549, 555, 1003
feedlot lambs, W449
feedlot performance, W313, W346, W384, 30
feeds, M383, T349
female broiler, M227, M239
female lambs, M325
female reproductive tract, 917
fence, T468
fenceline weaning, T31
fennel, M350
fermentable carbohydrate, T399
fermentable NDF, 1049
fermentation, M178, M345, T99, T404, W111, 382, 551, 817
fermentation end-products, T56
fermentation parameters, T113
fermentation product, 348, 977
fermentation profile, T391, T392
fermentation time, T98
fermented garlic powder, M260, M264
fermented milk, W53
fermented milk beverages, T85, W71
fermented soybean meal, T360, W210
fermented yogurt, W52
fermenters, T378
fertility, M300, M323, T275, T276, T310, W28, W90, W283, 167, 168, 194, 195, 533, 887, 924, 992, 993
fertilization, 368
fertilizer, 459
ferulate, 452
ferulic acid, 45
fescue, M119, M120, W363, 119
fescue toxicosis, M123, W292
Festulolium, M441
fetal development, M153, 914
fetal lambs, W149
fetal muscle, T176
fetal pancreatic development, 1132
fetal programming, 386, 636, 853
fetal survival, W239
fetal weight, T470
FGA, M297
FGF23, 1
fiber, M180, M388, M389, T57, T332, W122, W254, 409, 410, 458, 568, 742
fiber diameter, M462
fiber digestibility, W451
fiber digestion, M416, 975
fiber sources, 344, 509
fiber substitute, M359
fibroblast growth factor 2, 998
fibroblast growth factor 21, W156
fibroblast heterogeneity, T172
fibrolysis, M379
fibrolytic enzyme, M370
fibrolytic microorganisms, M396
fibronectin, 63
Fibrozyme, W451
finances, W89
finishing, M419, 197
finishing cattle, 203, 208
finishing diet, M370, W382, W388, 201, 320, 727
finishing growth, T152
finishing lambs, M471, W338
finishing pigs, M243, M269, T236,

- W462, 680, 701
 finishing system, 1031
 first oviposition, T234
FISH, 1097
 fish meal, W259
 fish oil, M423, M457, T245, T416, 133
 fitness, 932
 fixed chicken house, 543
 fixed-time AI, 78, 846
 flavor, M175, T74, T352, 128, 296, 795,
 908, 909, 910
 flax, W435
 flaxseed, M158, T447, W405, 375, 1136
 flint corn grain processing, W364
 floor density, M324
 floor eggs, 253
 floor space allowance, 409
 flow cytometry, T285, 888
 fluid milk, T103
 flunixin meglumine, 171
Fluo-3, T285
 fluoxetine, 471, 712
 foaling, W182
 foam, W326, 86, 601
 fodder trees, T129
 folacin, 696
 folic acid, T383, 695
 follicular dynamics, M285, W281
 follicular growth, 847
 food, 627
 food defense, 81
 food quality, 1029
 food safety, M100, W102, W103, 450,
 451, 1089
 food security, 1099
 foodborne pathogens, 692
 foodchain, 1101
 foot pad dermatitis, M312
 forage, M104, M159, M429, T108,
 T110, T111, T116, T122, T124, T125,
 T323, T344, T376, W84, W327, 96,
 321, 399, 454, 659, 742
 forage availability, T294
 forage digestibility, W351, 1042
 forage diversity, 93
 forage energy intake, 17
 forage fiber, M404, T118
 forage hay, M194
 forage level, M394, W415
 forage mixture, W137
 forage NDF, 560
 forage quality, M106, T341, W320
 forage replacement, 1135
 forage sorghum, M110
 forage species, T133
 forage to concentrate ratio, 875
 forage type, 561, 1136
 forage yield, W320
 forage:concentrate ratio, T376, 563
 foraging, 93
 formaldehyde, M437
 Fos protein, 708
 fosmid library, T386
 fouling, M186
 FQ-PCR, M143
 fractionation, W73
 frame size, 1010
 free amino acids, W222
 free fatty acids, W141
 free range, 1094
 free range chicken, W255
 free-access feeding, 392
 free-range, 184, 256
 free-range birds, M247, T138
 freestall, 239
 fresh cow, 1053
FreshLight, W98
 fructan, 117
 fructose, 731
 FSH, M298
 FTIR, T81, T89
 fumonisin, 988
 functional, 288
 functional anatomy, T474
 functional properties, T67, 129, 304, 790
 functional specific gravity, M385
 fungi, T379, 181
 fungus myceliated grain, M307
 furnished cages, T182, 257
Fusarium, W178
Fusarium mycotoxin, W217, W245,
 W249
 fusion expression, W242
 future predictions, 619
- G**
- gain, M79
 gait score, M308
 galactoglucomannan oligosaccharide,
 T56
 galacto-oligosaccharides, W55
 galanin, 714
 galanin receptor, 714
 Galectin, T161
 game birds, 810
 gammulin, 641
 gangrenous dermatitis, 464
 garlic, M361, T375, W12, 757
 garlic and onion, M172
 garlic oil, M343, M365
 garlic powder, M339
 gas delivery, W104
 gas losses, T123
 gas production, M349, M350, M353,
 M434, M435, T113, T134, T364,
 W431
 gastric pH, W54
 gastrointestinal, W203, 292
 gastrointestinal health, 291
 gastrointestinal motility, W21
 gastrointestinal nematodes, 756
 GDF11 propeptide, 116
 gelation, 945
 gelling, 946
 gender, T181, W244
 gene, W177, W198
 gene expression, M36, M275, T52,
 T233, T251, W20, W143, W148,
 W202, W215, W240, W241, W405,
 31, 160, 186, 274, 387, 467, 489,
 661, 783, 822, 823, 824, 834, 1060,
 1145
 gene regulation, T19
 generalized inverted Wishart, 73
 generation interval, T48
GeneSTAR, 590
 genetic change, 889
 genetic correlation, M202, 66, 69
 genetic evaluation, W28, 67, 433, 613,
 927
 genetic gain, 623
 genetic group, W305, W377
 genetic markers, T43
 genetic merit, W29
 genetic networks, M75
 genetic parameters, M77, M202, T42,
 T45, T50, T53, T137, W36, W39,
 W42, 68, 784
 genetic polymorphism, 803
 genetic selection, W348
 genetic strain, W267
 genetic trend, M76, T46
 genetics, T12, T38, T39, T40, T315, 930
 genistein, M290, 150, 364
 genome sequence, M65
 genomic evaluation, 438, 617, 620
 genomic imprinting, T145
 genomic prediction, 74, 613
 genomic relationship, 612, 616, 617
 genomic selection, M82, W25, 289, 614,
 615
 genomics, 60, 70, 160, 287, 288, 479,
 618, 621, 624
 genotype, M72, T110, W26, 21
 genotyping error, 612
 Gerber method, T85
 germ-free, 192
 germlinal disc, 368

- germinated, M413
 germinated corn, W395
 germplasm preservation, 991
 gestating sows, W261
 gestation, W142, 12, 760
 gestation housing, W457
 gestation length, 927
 gestation stall, 764
 GF AAS, M95
 GH, 112
 GHR, 473
 ghrelin, 1126
 GI hormones, W21
 GI nematodes, 854
 gilt, W243, W457, 763
 ginger, M253, M266, 758
 GIT microflora, W22
 gizzard, W205
 GLP-1, 1119
 GLP-2, W148
 glucagon-like peptides, 311
 β -glucan, M132, 511
 β -glucanase, T212
 glucocorticoid, T262
 glucocorticoid receptor, 256, 367, 368
 glucometer, W183
 gluconeogenesis, W413, 529
 glucose, T292, W172, W183, W418,
 384, 734, 1126, 1128
 glucose infusion, W276
 glucose meter, M181
 glucose transport, W204
 glucose transporter, 476, 963
 glucose transporter 8, W196
 glucose uptake, 476
 L-glutamate, M227
 glutamate, 137, 1118
 glutamate transport, W292
 glutamatergic neurotransmission, W292
 L-glutamine, M227
 glutamine, M231, 137
 glutathione, 274, 981
 glutathione peroxidase, T381, W173
 glycerin, M239, W221, W394
 glycerine, W455, W458
 glycerol, T405, T459, W403, W413,
 1133
 glycinate complexes, 1018
 glycine complex, 1017
 glycocalyx, 995
 glycogen, 1059
 glycol, T459
 GnIH, 711
 gnotobiotic, 983
 GnRH, T27, T266, W281
 goat, M24, M36, T364, T451, T452,
 T456, T457, T458, T459, T461,
 T465, T467, T468, T469, T471, 83,
 95, 402, 757
 goat milk, 796, 952
 goat reproduction, T466
 Gompertz nonlinear function, T305
 government programs, 226
 GPR109A, T257
 G-protein coupled receptors, 602
 GPS, T469, 92
 graded permeability, 303
 grain, T390
 grain adaptation, 204
 grain processing, W430
 granulocytes, T154
 grape polyphenols, M251, M274
 grass finish, W356
 grass maturity, M391
 grass-based dairy, 235
 grasses, M104, M105, T122
 grassland, 94
 grazing, M118, M127, M193, M384,
 T122, W163, W194, W301, W367,
 11, 98, 99, 231, 232, 233, 574, 632,
 634, 1046
 grazing dairy cows, M398, 874
 grazing native range, W308, 1138
 grazing permit, 575
 grazing steers, 29
 grazing system, 633, 1043
 grazing time, 820
 greenhouse gases, 546
 ground beef, M172
 ground beef palatability, M162
 ground corn, T374
 group, 411
 grouping strategy, 1058
 growing beef cattle, 17
 growing beef steers, M372
 growing cattle, M367
 growing degree units, M111
 growing pigs, M242, M263, T216,
 T219, T220
 growing rabbit, W212
 growth, M30, M89, M195, M226, T50,
 T217, T254, W62, W145, W146,
 W162, W209, W315, 2, 3, 4, 7, 49,
 109, 398, 479, 644, 702, 915, 1110
 growth and development, 106, 313
 growth and ruminal variables, W338
 growth curve, 72
 growth hormone, M149, M291, W153,
 W156, W293, 704, 705
 growth hormone secretagogue receptor,
 W157
 growth model, W171
 growth performance, M250, M263,
 M264, M322, M324, M346, M372,
 M401, T449, W206, W255, W340,
 W460, 507, 700, 972, 977, 1003
 growth performance and feed intake,
 M354
 growth performance and immunity,
 T238
 growth performance and intestinal mi-
 croflora, W213
 growth promotants, 337
 growth traits, M77, T45, T46, T53
 (GTG)5-PCR, W45
 guar meal, M258, W402
 Guinea Fowl genomics, T36
 gustducin, 1116
 gut, M276, 295
 gut colonization, 980
 gut development, 689
 gut health, M268, 265
 gut health and function, T228
 gut microbiota, 349
 gut morphology and intestinal micro-
 flora, M274
 gut peptides, W392
 GWAS, M460

H

- Haemonchus contortus*, T163, 755
 hair lambs, W449, W451
 hair sheep, M326, T453, W450, 407
 Haiti, W105
 Halloumi cheese, 791
 hand-held meter, 597
 haplotyping, 622, 623
 haptoglobin, W274
 harvest moisture, W129
 harvesting methods, W119
 harvesting time, W122
 hatch rate, 360
 hatchery wastes, 374
 hay, 457, 1045
 hay crop silage, T119, W113
 hay soaking, 117
 hay type, 118
 hCG, M289, T282, W283, W285, 165
 HDL, W381
 health, M47, M86, M160, M171, T17,
 T348, 13, 422, 766, 1005
 health traits, 930
 heart rate variability, 415
 heat, 592
 heat processing, 497
 heat production, 587
 heat shock protein, M143, W23
 heat stability, W76

- heat stress, M37, M38, M39, M40, M41, M303, M311, M318, M325, M336, M338, T38, T314, T322, T324, T327, T329, T333, T335, T384, W399, 173, 176, 475, 487, 718, 722, 725, 726, 829, 860, 862, 906, 997, 1021, 1080, 1083, 1127
 heat treatment, 668
 heated milk, 132
 heat-tolerant, 1114
 heavy metals, M95
 heavy pig productivity and quality, T149
 hedgehog, 826
 heifer, M20, M193, M369, T313, 536, 537, 571, 640, 845, 925
 heifer development, 852
 heifer growth, T330, 244
 hematocrits, W15
 hematological parameters, M244, T63, T64
 hematological values, W294
 hematology, 985
 hemicellulose extract, 744
 hemorrhagic bowel syndrome, 241
 hemp, M257
 hemp oil, M275, M316
 hemp seed, M316
 hen, T231, W226
 hen age, M310
 hen performance, 189
 Henequen, W192
 hen-housing system, 1025
 hepatic fat deposition, 682
 herbage mass, 819
 herbal extract, 1074, 1075
 herd constraint, 808
 herd health, 82
 herd prediction, W90
 herd size, W89
 heritability, 69, 787, 923
 heterofermentative bacteria, W126, W136
 heterogeneity of residual variances, 785
 heterophils, 271
 heterosis, 435, 436
 heterozygous, M89
 hidden Markov model, 255
 high altitude, M239
 high concentrate diet, 568
 high levels distillers grains, W346
 high milk yield, W88
 high moisture corn, W431, W433
 high oil poultry by-product meal, T198, T237
 high performance liquid chromatography, W71
 high value cuts, T166
 high-linolenic perilla fatty acid, T440
 hindgut, W422
 hind-gut, 1146
 histamine, T59, T60
 histidine, T415
 histology, 333
 histopathology, M244, T64
 HMBI, 743
 hock lesion, 863
 Holstein, W27, W29, W95, 28, 488
 Holstein bull calves, M33, T320
 Holstein cow, T302, T303, W200, W287, 876, 877, 1103
 Holstein heifers, M195, T355
 homocysteine, W209
 homofermentative bacteria, W136
 homogenization, W63
 hoof health status, W409
 hoof lesions, 858
 hops, M341
 hormone, M288, M302, W145, W400
 horse, W175, W181, W183, 36, 42, 117, 118, 119, 120, 122, 123, 126, 349, 355, 356, 457, 608, 812, 830, 831, 832, 834, 836, 1097
 host response, M138
 host-pathogen, 465, 466
 hourly effective rumen degradation ratio, T412
 house fly, W85, 1090
 housing, M2, M4, T312, 419, 1027
 housing systems, 1022
 housing temperature, M231
 Hox gene, 116
 HPAEC-PAD, W55
 hullless barley, W434
 human, W23
 humane killing, 262
 humidicula, W445
 humoral immune, T201
 humoral immune response, M252
Humulus lupulus, M346
 hybrid, M111, 500
 hydrogels, W81
 hydrogen sulfide, T377, W318, W332, 553, 554, 555, 558
 hydrogenated palm oil, W370
 hydrology, W316
 hydrolysis, 804
 hydrolyzed yeast, 501
 hydroponic forage, W188
 25-hydroxycholecalciferol, 698
 hydroxyproline, T186
 5-hydroxytryptamine, M121, W291
 5-hydroxytryptamine receptor, W291
- |
- hygiene, 859
 hyperprolific Chinese sows, W467
 hypocalcemia, W396, 881
 hypolipidemic, M255
 hypothalamic neuropeptides, W392
 hypothalamus, T36, W469, 1121
 hypothermia, M50
 hypoxia, T288, 363, 984
- IBD, 293
 Iberian pig, T179
 IBRV, T21
 ideal protein, M208, M213, M223, M224
 identification, M331, 1019
 identification of flavor, T75
 IEC-6 apoptosis, M42
 IGF, M290
 IGF-1, W272
 IGFBP, M279
 IGFBP-2, M92
 IGF-I, 112, 852, 963
 IgG, T17
 IL-18, T20
 IL-33, 955
 ileal amino acid digestibility, 141
 ileal amino acid digestibility broilers, 497
 ileal digestibility, M222, 496
 ileal fermentation, 334
 ileal gene expression, T159
 ileal-postileal, T202
 image analysis, M76, T86, 798
 imbalance, T441
 imitation Mozzarella cheeses, T67
 immobility, 193
 immortal chicken liver cell lines, M55
 immune, M31, M41, T15, 413
 immune cells, W217
 immune competence, T156
 immune function, T343, W300, W408, W410
 immune reagent, M141
 immune response, M59, W13, 342, 648, 1084
 immune system, W6, 1074
 immune system development, T360
 immune system stimulation, 274, 489
 immunity, M120, T24, T31, T157, W429, 240, 273, 463, 694, 836, 837, 838, 1081, 1142
 immunocastration, T181
 immunocastration and gender, 110
 immunoglobulin, T16, T339, 393, 523
 immunoglobulin G1, W199

immunohistochemistry, W245
immunology, T154, W87, 840
impact, 596, 1096
implant, M471, 29, 111, 1000
imputation, 621, 622
in ovo challenge, 443
in ovo feeding, 644
in ovo injection, T143, 360, 647
in sacco methods, T422
in situ, M446, 97
in situ ruminal degradation, M424
in vitro, M194, M362, M446, T112, T118, T221, T361, T377, T375, 688, 988
in vitro culture, M296
in vitro digestibility, T191, T193, W263, 815
in vitro digestibility and gas production, M420
in vitro evaluation, 395
in vitro fermentation, M351, M352, T372
in vitro gas production, T120, W118, W137, W188, 453
in vitro NDFd, T119
in vitro rumen fermentation, M358
in vitro ruminal fermentation, 460
in vivo, 988
inbreeding, M74, M458, T48, W27
inbreeding coefficient, 433
incidence, M11
incidence of diarrhea, W258
incubation, 174, 583, 584, 645, 646
INDF, T126, W113
indicator amino acid oxidation, 354
indigenous vaccine, M71
induced lactation, 469, 1070
infant, 292
infectivity, M70
inflammation, M134, M221, T160, W144, 4, 600, 1124, 1147
inflammatory bowel disease, 285
inflation, 616
infrared, M431, 261
infrared milk analyzer, T84
infrared spectroscopy, T84
infrared thermography, M26, M50
infusion, T420
ingestive behavior, M415
initial body weight, 50
innate immune function, 501
innate immune response, T148
innate immunity, M1, T40, T156, W7, 190, 603
innovation, 104
inoculant, M369, W115, W127, W133,

W328, W431, W433
inoculation, 817
inoculum, T193
insemination, 808
insulin, M230, W196, W276, W298, W392, 604, 832, 878, 1127, 1128
insulin response, 870
insulin sensitivity, T235
insulin-like growth factor, 72
insulin-like growth factor-1, W293
intake, M15, M391, M427, M445, T354, W345, W347, W348, W375, W397, 145, 402, 640, 891, 908, 909, 1030, 1122, 1139, 1141
integrated crop livestock systems, W445
integrated systems, 633
intensive, W189
interaction effect, 155
interactions, 159, 946
intercultural competencies, 809
internal egg quality, M256
internal fat, W352
internal organ, T147
internal parasites, 267
internal parasitism, 757
international extension, 809
interpreter, W456
intestinal adaptation, W204
intestinal digestibility, M439
intestinal digestion, M446
intestinal epithelial cell, 956
intestinal lymphocyte, W245
intestinal microbiota, M232, 983
intestinal microflora, T340
intestinal morphology, T138
intestinal release, 527
intestinal viscosity, 108
intestinally absorbed protein supply, W434
intestine, W341, W398, 309, 350, 355, 357, 518, 691, 693, 834, 916, 1119
intramammary infection, M51
intravaginal lactobacilli, W2
intravaginal probiotics, W3, W5
inulin, M174
investment analysis, 87
involution, 318
iodinated casein, T143
iodine, M97
iodine intake, M96
ionic calcium, 305
ionophore, M355, 571
Iranian Holstein, T304, T305, W35, W36, W38, 528
Iranian native chicken, T137
iron, 519

irradiated, M172
IRS1, 870
IS 1311 PCR-REA, 284
isolation, W154
isoleucine, M214, 499

J

Japanese Black cattle, M76
Japanese quail, M313, M322, T147, 976
Jatropha kernel meal, 869
jejunum, W8
Jersey, 437, 621
Jersey steers, W315
Jiggs, T109
Jinhua pigs, 325
Johne's disease, M57, M58, M64, M66, M67, M70, M71, 55, 56, 59, 61, 62, 63, 278, 279, 281, 282, 286, 665
Johnin purified protein derivative, T155
journal, 102
junior faculty, 580
juniper, 267, 753
Juniperus monosperma, T121

K

Karst area, T389
ketosis, 597
kids, 403
kinetic models, M448
KiSS1, 706
Kisspeptin, M291
Klebsiella, W49
knowledge, 806
Korean herb mixture, M242
Korean native broilers, M270
kyphosis, 1

L

lablab bean, M109, M110
labor efficiency, W86
laboratory cats, 936
laboratory dogs, 936
 α -lactalbumin, 949
lactate, T3
lactating, T33
lactating cow, T409, T433, T437, W277, W395, 216
lactating dairy cow, M196, M428, W278, W282, W408, 880
lactating dairy ewes, M453
lactating Holstein cow, M406, M407, W402, 486
lactating water buffalo, 219
lactation, T153, T246, W269, W270, W272, W412, W428, 210, 213, 315,

- 406, 471, 523, 712, 958, 964, 1051,
 1056, 1064, 1070
 lactation cycle, 468
 lactation feed intake, W465
 lactation inhibition, 470
 lactation performance, M66, T346,
 W184, 879
 lactation termination, W29
 lactation yield, 927
 lactic acid, 731
 lactic acid bacteria, M99, T91, T139,
 W45, W56, 624, 953, 957
 lactobacilli, W65
Lactobacillus, T194, W67
Lactobacillus acidophilus, 665
Lactobacillus buchneri, W133, W136
Lactobacillus casei, W50, 131
Lactobacillus plantarum, T238, T247
Lactobacillus reuteri, W213
Lactobacillus rhamnosus, W53
Lactococcus, W64
 lactocrine, 917
 lactoferricin, W241
 lactoferrin, W241
 β -lactoglobulin, 803
 lactose, M181, T93, T194
 lamb, M14, M354, M454, M464, M465,
 M468, M469, M472, T175, T442,
 T448, W448, 8, 323, 403, 751
 lamb crop, M289
 lamb performance, M474
 lamb production, 23
 lameness, M3, M7, M11, M12, M33,
 M48, M333, T312, 359, 762, 764,
 858, 861, 863, 905
Lamiaceae, M238
 laminitis, M35
 lantibiotic, W58
 latent infection, 280
 lauric acid, 447, 739
 layer, T230, 153, 154
 layer housing costs, 1023
 layers, M320, T18, W228, 374
 laying hen, M241, M258, M259, M260,
 M267, M271, M275, M316, M317,
 T38, T182, T234, T237, W229,
 W256, 156, 257, 259, 261, 339, 442,
 544, 673, 674, 695
 laying hen performance, M261
 laying hen welfare, T10
 LCOH, M126
 lead feeding, 1058
 leaf protein, M430
 learning assessment, 230
 learning outcomes assessment, 578
 lecithin, 152
 leg problems, 177
 leg traits, 751
 legislation, 36, 607
 legume, M104, M105, W118, W222,
 W443
 length of productive life, W193
 leptin, M88, M200, T258, T261, T279,
 5, 403
 lesser-known sunflower, M254, 504
 let-7g, 474
Leucaena collinsii, T129
Leucaena leucocephala, T129
 leucocytes, W108
 LeuD mutant, 61
 LH, 711, 847
 LH surge, M282
 libido, 408
 licorice extract, M259
 light, 583
 light intensity, 585, 1013
 light lamb, M473
 light scattering, 948
 lighting, T8, 183, 191, 581, 584, 586
 lignans, W435
 liking, 136
 limit-feeding, M8, W186, 568, 569, 570,
 571
 linear type traits, W25
 linoleic acid, T214, T215, T236, T434,
 W166, 264
 α -linolenic acid, W408, 871
 LinPRO, T301
 lipid oxidation, M472, T184, 178
 lipid supplement, W415
 lipids, M455, T69, T407, T408, 130
 lipogenesis, 959
 lipoic acid, M294
 lipolysis, T77, T262, 605, 1029
 lipopolysaccharide, M135, T148, W197,
 19, 660
 lipoproteins, W378
 lipoteichoic acid, W197
 liquid consumption, W253
 liquid whey, M176
 litigation, 574
 litter, 441, 539, 1065
 litter moisture, M312
 litter size, T47, 926
 litter use, 85
 litter value, 85
 litter weight, T178
 livability, 599, 922
 live vaccine, M62
 live yeast, T384
 liver, M294, T259, T290, T291, T298,
 W147, W396, 364, 559, 827, 873
 liver abscesses, 591
 liver gluconeogenesis, 1131
 livestock, 944
 livestock grazing, 577, 631
 loci, 772
 locomotion, M3, 359
 locus, M64
 loin eye area, W368
Lolium, T114
 long-chain fatty acids, 824
 longevity, T313, 715
 longissimus dorsi, M164, M170, W157
 longitudinal data, M81
 longitudinal study, 283
 loss, W114
 low density diets, W256
 low fat, M179, M183, M187, T72, 130,
 299, 793
 low sodium, 299, 792
 low-moisture block, W172, 732
 low-moisture part-skim Mozzarella, T78
 LPS, T390, 600, 651, 841
 luciferase, 366
 luminosity, M165
 lung cancer, W235
 lutein, 185
 luteinizing hormone, W141, W289, 706
 luteolysis, T269, 161
 lying, M4
 lying and standing time, 903
 lying behavior, M51, 248, 726
 lying time, W96
 lymphoid organ, W245
 lysine, M207, M210, M211, M219,
 T415, T433, T437, W78, W374, 143,
 492, 494, 495, 498, 760, 1051
 lysophospholipids, 146
 lysozyme, T228
- M**
- M. ap, 60
M. elsdenii, T347, T398
 maceration, T34
 macrophage, 272
 macrophage function, M136
 Madin-Darby Bovine Kidney cells,
 T260
 magnesium, T59, 552
 magnetic poles, M22
 maintenance, M466, T296
 maize, 514
 maize stubble, M377
 male broiler, M308
 male effect, T466
 males, T284
 malt barley grain, T367

- mammary, 964, 965
 mammary calcium transport, 318
 mammary epithelial cell, M145, M146, 473, 963
 mammary gene expression, M147
 mammary gland, W195, 467, 474, 475, 961
 mammary gland development, M142
 mammary gland metabolism, 871
 mammary growth, W164
 mammary tissue, 247
 management, M107, T312, W316, 720
 management tools, W470
 manganese, 556
 manganese oxide, 555
 mango by-products, W333
 mannan oligosaccharide, T159, W231
 β -mannanase, 1114
 mannanase, T208
 manure, T428, W85, W326, 189, 542
 MAP, 280, 286, 665
 MAP super-shedder, 275
 marbling, W314, 149, 550
 marbling deposition, 17
 mare, W182, 121, 1095
 marginal and relative economic weight, T25
 marination, 327, 329
 marine algae (*Spirulina platensis*), M261
 marker density, 620, 622
 markers, W174
 market, 609
 market cows, 1008, 1009
 mass balance, 1112
 mass emergency depopulation, 86
 mass spectrometry, T79, W79, W80
 mastitis, M43, M44, M192, M198, T460, W197, W429, 38, 247, 263, 482, 589, 593, 594
 mate, W253
 maternal, M459
 maternal effects, T49
 maternal imprint, W251
 maternal malnutrition, 914
 maternal nutrient restriction, 639, 1132
 maternal nutrition, M153, W398, 853, 915, 916, 1006
 maternal obesity, M280, 637, 1129
 maternal undernutrition, 1131
 mathematical model, W138, 394
 mating, 709, 710
 matrix metalloproteinases, T172
 matrix values, 340
 maturity, M113, W120, W132, 97, 828
 maturity stage, W452
 Mcal/d, W376
 ME, M114, M321, 687
 meal, M20
 meal criteria, W436
 meat, T30, T186, 478, 480, 968, 974
 meat and bone meal, T197
 meat color, M155
 meat goat, T450, 404, 932
 meat powder, M263
 meat quality, M242, M243, M473, T171, T182, W207325, 326, 327, 967
 meat tenderness, 319
 meat trait, M82, M150
 meat yield, T212, 138
 mechanistic modeling, 425
 medication, M32
 medicinal herb, 40
 medicinal plants, M269, M273, W6, W22, 1078
 medium, T380
Megasphaera elsdenii, T391, T392, 1141
 melamine, M93
 melatonin, 582
 Mendelian sampling, 623
 Merino, M463
 Merino sheep, M461
 mesenchymal stem cells, W234
 mesquite, M131
 meta-analysis, M123, M452, W330, 68, 398, 560, 741, 886, 1056
 metabolic and endocrine profile, M426
 metabolic disorder, W2
 metabolic hormones, 25
 metabolism, M293, T249, T419, W418, 204, 209, 391, 520, 557, 644, 750, 827, 1060, 1124, 1125
 metabolites, M292, W444
 metabolizable energy, M323, T120, T197, T223, 339, 685
 metabolizable lysine, T409
 metabolizable protein, M278, T176, W142, W149, 15
 metabolomics, 593, 769
 metagenomics, T386
 metaphylaxis, 243
 methane, M191, M341, M362, M364, M365, M366, T361, T375, T376, W310, 460, 547, 747
 methionine, M206, M207, M210, M396, T402, T419, T424, T425, T431, T433, T437, W78, W374, 217, 737, 743
 methionine and mineral chelates, W409
 methionine sources, 981
 method, 140
 methyl metabolism, T402
 metritis, T308, T309, W41
 Mexico, T32, 1099
 MFGM, W68
 MFI, T173
 micellar casein, M188
 micellar casein concentrate, 303
 microaerophilic, W104
 micro-algae, 211
 microarray, M40, M41, T39, W58, 61, 91, 135, 648
 microbe, 123, 291, 295
 microbial attachment, M441
 microbial community, W461
 microbial crude protein, M433
 microbial crude protein synthesis, T436
 microbial diversity, T252
 microbial dynamics, W126
 microbial ecology, W48
 microbial fermentation product, T397
 microbial genomics, 313
 microbial protein, W137
 microbial protein production, T430, 216
 microbiologic, M94
 microbiological quality, W66
 microbiology, W43
 microbiome, 314
 microbiota, M49, T158, W51, 465, 508
 microbiota,
 microclimate, M23
 microencapsulation, T247, 954
 microfiltration, M186, 225, 302, 303, 304
 microflora, 750, 793
 microfluidics, M63
 microRNA, T19, W463
 microsilage, M105
 microwave irradiation, M434, M435
 mid-infrared, 799
 mid-infrared spectrometry, T83
 MIF, M140
 Mihalic cheese, T77
 milk, M58, M94, M144, M178, M376, M454, T318, T319, T397, T435, T461, W44, W376, 661, 766, 784, 799, 800
 milk bioactives, M177
 milk candy, T105
 milk composition, M328, M425, M453, T83, W37, W201, W414
 milk fat, T365, T396, T423, 212, 245, 883, 959, 962
 milk fat content, W424
 milk fat depression, 740
 milk fat globule, W201, 962
 milk fat globule membrane, 947

- milk fatty acid, M148, T373, T416, 785, 874, 883
 milk fatty acids composition, 820
 milk gels, 948
 milk iodine, M96, M97
 milk microstructure, T86
 milk oligosaccharides, 626
 milk parameter, M403
 milk performance, 220
 milk powder, T105
 milk price, 226
 milk production, M67, M391, M457, T302, T387, T409, T418, W5, W194, W390, W426, W432, 215, 407, 481, 717, 719, 721, 745, 816, 880, 1103, 1134
 milk production systems, 907
 milk protein, T431, 218
 milk quality, T89, W43, W49, W394, 223, 308, 859
 milk replacer, T311, T342, T343, T345, T348, T350, T357, T358, W166, W167, W168, W169, 392, 487
 milk sample, T90, W35
 milk serum protein, T101
 milk stasis, 467
 milk storage, 962
 milk synthesis, 476
 milk traits, W33
 milk treatments, T86
 milk urea nitrogen, M196, T306, T307, T414, T432, W33, W34
 milk variation, 1058
 milk yield, M12, M302, M328, M425, T307, T324, T424, W198, W273, W274, W414, W416, 405, 562, 879, 1100
 milk yield and composition, M399
 milker, W92
 milk-fed calf, T341
 milking, W201
 milking frequency, T302, T303, W31, W32, W194, W200, 721
 milking interval, W31, W32
 milking temperament, 929
 millet, 101, 453
 milling, T80
 mineral, M382, T141, T364, T462, T463, W75, 159, 388, 521
 mineral bioavailability, 336
 mineral concentration, T464
 mineral excretion, 516
 mineral intake, W309
 mineral proteinates, W227
 minerals, 974
 Miniature Horse, 125
 miR-15a, 473
 miRNA, W151, W152, 474
 Missouri, 83
 mitochondria, M149, W19, 115, 964, 965
 mitochondrion, M42
 mixed, T168
 mixed diets, M474
 mix-grazing, 94
 MLSSR analysis, 283
 MMP, M59
 mode of action, 982
 model, M48, W363, 702, 724
 modeling, W237, 55, 280, 281, 296, 426, 428
 modernization, T321
 modified three-step procedure, T429
 modified wet distiller grains, 202
 modulation, 694
 MOEFF, W350
 Moghani sheep, T45, T46, T49, T50, T51
 moisture and sampling depth, M125
 moisture content control, T68
 moisture loss, 361
 Mojonnier method, T85
 molasses, W172
 molecular evaluation, T114
 molecular value predictions, M87
 molybdenum, 554
 molybdenum and copper, 553
 MON, W380, W387
 MON810 maize, 508
 monensin, M394, T28, T368, T396, 383, 1086
 monensin level, T351, W386
 monitoring, 733, 1038
 monoclonal antibody, T20, 650
 Montbeliarde, 434
 moose (*Alces alces*), T294
 morbidity, 30
 morphology, M40, M44
 motility, 124
 Mozzarella, M179
 mRNA, T259, T290, T291
 mTOR, W297
 mTOR pathway, 109
 mucin, T158, W202, 350
 multibreed, 438
 multibreed evaluation, M84
 multi-enzyme, T223, T232
 multiparous, T150
 multiple use, 630
 multiple-trait model, 928
 multiplex PCR, 274, 489
 multiplex qPCR, W299
- multiplication, 1093
 multispecies biofilm, M189
 mung bean waste, M250, 507
 muscle, T169, 6, 112, 478, 604, 637, 638
 muscle development, T146, T177
 muscle fiber, M166
 muscle growth, W143
 muscle satellite cell, 106
 mushroom, W65
 muskox, 567
 Myco-Ad, 986
Mycobacterium, 65
Mycobacterium avium ssp. *paratuberculosis*, M59, M61, M65, M66, M68, M71, T155, 57, 276, 283, 284, 285
Mycobacterium paratuberculosis, M60, 277
 mycoplasma, 263
Mycoplasma gallisepticum, M54, T18
 mycotoxin adsorbent, 1142
 mycotoxin binder, 345
 mycotoxins, M116, M117, W110, W125, W178
 myogenesis, T178
 myosin, M234
 myosin heavy chain, T146, 325
 myotonic goat, T162
 myristic acid, 739
- N**
- N efficiency, T436
 N excretion, M208, T315
 N fertilization, M124
 N retention, M208
 N use efficiency, 715
 n-3 FA, T245
 n-3 fatty acids, 148, 211, 690
 n-3 PUFA, T234
 NaCl, CaCl₂, T71
 NaCl/KCl, 791
 n-alkane, M126
 NANA, 995
 nanofibers, W81
 Na-P transport, 1
 native grasses, 458
 natural, 1036
 natural antioxidants, M240, W253
 natural diets, 1049
 natural plant extracts, 444
 natural-fed cattle, 591
 naturally raised, 8
 Natustat, 270
 NCAPG, 635
 NCN, M182
 NDF, M108, M442, W120, 43, 452, 892
 NDF digestibility, T118

NDF digestion, T112
 NDFD, 43
 near infrared reflectance spectroscopy, 1113
 near infrared spectroscopy, M449, W223, W306
 neck skin enrichment, 371
 necrotic enteritis, 538, 1087
 NEFA, T317, T331
 Nellore, M348, M419
 Nelore and Angus, M17
 Nelore steers, M418
 nematode parasitisms, 268
 neomycin sulfate, 397
 neonatal, 292
 neonatal offspring, 642
 nesfatin-1, 1123
 nest design, 254
 nest site selection, 254
 nesting behavior, 253
 net energy, 684
 net requirement, T462, T463
 NetB, 538
 neuroendocrine regulation, 709
 neutrophil, T22, T161, W9, 38, 46, 660, 836
 newborn calves, T292
 newborn piglet, M50
 Newcastle disease, M56
 niacin, M408, T314, T395
nifH, T388
 Nile tilapia, T135, T244
 NIR, M450, T126, W113
 NIRS, 28
 nitarsone, 268
 nitrate, 269
 nitrate toxicity, T52
 nitric oxide, M135, 272
 nitrogen, T428, W329, 236, 1044
 nitrogen loss, W319
 nitrogen metabolism, T61
 nitrogen phosphorus, W181
 nitrogen utilization, T316
 nitrogen utilization efficiency, W391, W411
 nitrogen-15, W323
 nitrogen-fixing bacteria, T388
 nitrogenous compounds, W109
 nitrotyrosine, 363
 noncyclic dairy cows, 162
 nondomestic, 935
 nonessential elements, T97
 nonesterified fatty acids, M284, 526
 nonforage fiber, 566
 nonlinear, T168
 nonlinear functions, T135

nonlinear model, W236
 nonpoint source pollution, W317
 nonprotein nitrogen, M410, T417
 nonstarch polysaccharidase, 667
 nonstructural carbohydrates, W175
 nonthermal, W61
 Northeast dairy farm, T432
 nose-clips, W311
 no-tillage system, T123
 noxious weed, 14
 NPY, 5
 NRAMP-1, M24
 NSP-enzymes, 334, 1106
 number and quality, T280
 NuPro, 266
 nursery, T218, 144, 598
 nursery pigs, T159, T252, W468, 675
 Nutridense, 687
 nutrient, 1112
 nutrient absorption, 1144
 nutrient adjustment, T199
 nutrient balance, W181
 nutrient composition, T117, 28
 nutrient content and digestion, T366
 nutrient density, 683
 nutrient digestibility, M229, T213, T216, T231, 344, 485, 502, 1103
 nutrient digestibility heifers, 199
 nutrient excretion, 542
 nutrient imbalance, T199
 nutrient management, 233
 nutrient partitioning, M205
 nutrient restriction, M146
 nutrient sensing, 1119
 nutrient supply, 745
 nutrient utilization and availability, M447
 nutrient-gene interaction, W238, 312, 559
 nutrients, T109, T110, W424, 212
 nutrigenomics, 159, 466
 nutrition, M102, M177, T406, W91, W280, 140, 172, 232, 490, 694, 725, 730, 833, 885, 1064
 nutrition changes, 1137
 nutrition efficiency, T359
 nutrition models, 429
 nutritional interrelation, M215
 nutritional models, 425
 nutritional quality, M112
 nutritional supplementation, T466
 nutritional value, W263, 510
 nutritive value, M125, W117, W188, W192, 895, 979
 nylon bags, T438

O
 oat nitrogen digestibility, 120
 oat variety, W452
 objective measurement, M462
 ochratoxin A, W18, W248
 Octabor, W318
 offspring, M280, 915
 oil seeds, T438
 oil source, M455
 Okara, W448
 oligofructose, W422
 oligofructose overload, 749
 olive olein, W370
 omasal digesta, W361
 omega fatty acid, T96
 omega-3, M282, T195, T328, T365, 681
 omega-3 fatty acid, M158, 245, 503, 678
 ω-3 PUFA, 185
 ω-3s, 153, 154
 OmniGen-AF, W9, 837
 online, 228
 online sensor, T68
 online text, 901
 oocyst shedding, M29
 oocyte maturation, T283
 OptiCal, 151
 Optigen, M410, T417
 Opuntia, T113
 oral health, 291
 orchardgrass, 564
 oregano, T244
 oregano essential oil, T240
 organ weights, W142, W149, 642
 organic, W89, W91
 organic acid, W129, 450, 451
 organic beef, 1101
 organic broilers, 346
 organic cultivation, T134
 organic dairy, M198
 organic fertilization, M421
 organic mineral, M46, 516, 886
 organic selenium, W232
 organic trace mineral, W233, 513, 544
 organic zinc, 343, 517
 organoaluminosilicate, 345
Origanum vulgare, 481
 ORP, M390
 osteopontin, M144, 247
 outcome-based measures, 52
 outcomes assessment, 898
 outdoor pigs, M337, T6
 outdoor swine, M332
 outliers, 424
 ovarian hemodynamics, 9
 ovariectomy, 472
 overcrowding, M5

- oviduct, 187, 367, 531, 532, 534
 ovine, T131, T279, W144
 ovine oocyte, T280, T281
 Ovsynch, W286, 162, 163, 164, 166, 167
 ovulation, M301, 161
 ovulation rate, W239
 oxidation stability, M266, T90, T440
 oxidative stability, T96
 oxidative stress, T171, W246, 134, 1063
 oxytetracycline, 397
 oxytocin, T270
- P**
- P.G. 600, 763
 packaging, 376
 PAG, M199
 pain, T9, 609
 pain management, 610
 pain medication, 420
 Pakistan, 589, 1062
 palatability, T352, T354, W208, W454
 pale, dark, T183
 palm kernel meal, native laying hen, W321
 palmitoleic acid, 823
 Palustrin-OG1, W242
 pancreas, 738
 pancreatic, W240
 PAP, T28, W380, W387
 paper glue, T106
 papillae, W108
 parameter estimation, 922
 parasite, 758
 paratuberculosis, M62, M63, 65
 parent average, 619
 parental genotyping, M330
 parenteral supplementation, W343
 parity, M302, 46, 1062
 parthenogenesis, 361
 partial mixed ration, M427
 particle distribution, M429
 particle size, W436, 48, 252, 565
 partridge, W257
 passage rate, M451, W174, 561
 passive immunity, 264
 passive immunization, M355, M356
 passive transfer, 240, 401, 662
 pasture, M103, M161, M426, M427, T76, T127, T330, W175, 224
 pasture allowance, 819
 pasture containment, T468
 pasture finishing, 1010
 pasture sustainability, T128
 pasture-based, 234
 pasture-fed sheep, 1102
- path analysis, W199
 pathogen, M24, W102, 1088, 1091
 pathogenesis, 60
 payment system, T319
 PCR, 671
 pea, 139
 pea hulls, 502
 pea protein concentrate, 497
 peanut skins, T452
 peanuts, W105
 pearl grey guinea fowl, M324
 pearl millet, M125
 pectin feedstuff, M406, M407
 pectin-rich byproducts, M428
 pectoralis, M221, 498
Pediococcus pentosaceus, W133
 pedometer, M10, W335, 1020
 pedometry, 905
Peganum harmala, T131
 Pekin, 645
 Pekin duck, M314, 254
 Pelibuey lambs, T449
 pellet process, M342
 pellets, T189
 pen size, 417
 peNDF, M395
Penicillium, M116, M117, W110
Peniophora lycii phytase, 336
 Penn State Particle Separator, M393
 peppermint, M349
 PepT1, T41
 peptide-N, T370
 peptides, T99
 percent Angus, 1001
 performance, M151, M211, M213, M225, M241, M247, M336, M465, T139, T203, T241, T337, T374, T427, W8, W13, W14, W226, W257, W365, 51, 244, 378, 399, 670, 767, 779, 780, 781, 786, 893, 970, 1074
 performance and gut morphology, T243
 performance and nutrient digestibility, T219
 performance testing, T457
 periestrus period, M287
 perilipin, 605
 peripartal dairy cow, 870
 peripartum, M292, 881
 peripartum cows, 526
 periparturient, M53
 periparturient Holstein cows, W438
 periparturient period, 876
 persimmon, W446
 persistence, M149
 persistent infection, T14
 pet food, M262
- PFM, 236
 PGF2 α , M297, 848, 849
 pH, M165, M304, M390, T183, T380, W203, W369, 301, 305, 728, 1047
 phage therapy, 1089
 phagocytosis, 840
 pharmacoperone, 602
Phaseolus vulgaris, T448, T449
 phenotype, 1065
 phenotypic correlation, M310
 phenotypic trend, W35
 phlorotannins, M347
 phosphate, W265
 phosphate transporter, 515
 phospholipid fatty acid analysis, 866
 phosphorous, T346
 phosphorus, T222, T332, W230, W266, W267, W329, W358, W425, 20, 236, 1105
 phosphorus availability, T206
 phosphorus digestibility, T210
 phosphorus excretion, 717
 phosphorus/calcium, T230
 phosphorylation, W79
 photoperiod, M328, T467, 179
 photoreception, 707
 physical effective factor, M393
 physical properties, W69
 physically effective fiber, 566
 physicochemical, M94
 physicochemical property, T106
 physiology, W248, 7, 290, 718
 phytase, M209, T204, T206, T207, T209, T210, T222, T227, T229, W237, W338, 335, 341, 352, 1105, 1106, 1107, 1108
 phytate, 333, 1108
 phytic acid, 352
 phytic phosphorus, 1113
 phytophenic additives, M246
 phytophenic feed additives, 340
 phytonutrients, W7
Pichia pastoris, T204, T251, W240
 pig, M216, M217, M219, M246, M279, M290, M336, M338, T3, T151, T152, T160, T177, T191, T202, T217, T226, T248, T249, T253, T254, T300, W211, W216, W218, W234, W237, W238, W244, W260, W265, W464, 2, 144, 148, 351, 414, 417, 418, 492, 493, 495, 496, 507, 508, 511, 519, 520, 521, 522, 598, 642, 676, 677, 678, 688, 926, 966, 975, 987, 1021, 1105, 1112
 pig breeding, 430
 pig liver, W106

- pig performance, W462, W466, 110
 piglet, M230, M235, T1, T2, W457,
 W459, 352, 759, 1106, 1107
 piglet diet, 1120
 piglet nutrient digestibility, W258
 piglet performance, T228, W214, W467,
 1076
 piglet productivity, T150
 pinnipeds, W293
Pinus pinea seeds, T64, T65
 pistachio by-product, T445
 pit, W326
 pituitary, 366
 pituitary development, 643
 placental efficiency, M284
 placental nutrient transport, 639
 placentomal type, 999
 plant bioactives, M384
 plant biomass, T128
 plant extract, M246, M342, M357,
 M358, M364, M366
 plant nutrition, T124, T125, T128
 plant oil, M273, T439
 plant secondary compounds, M364,
 M366, 93
 plant-derived molecules, W101
 plasma, T301
 plasma AA, 215
 plasma amino acids, T418
 plasma lysine, 218
 plasma metabolites, W1, W3
 plasma minerals, T329
 plasma phospholipids, 156
 plasma proteome, M53
 plasma urea nitrogen, 384
 plasmin, 802, 804
 plasminogen, M173
 plectasin, W215
 PLSR, W24
 PMSG, M287
 podcast, 230
 Poisson analysis, 528
 policy, 573
 polioencephalomalacia, 1073
 politics, 1026
 polyamide film, W135
 polyethylene film, W135
 poly-L-lysine, T281
 polymerase chain reaction, 347
 polymeric carbohydrates, 2
 polymorphism, M90, M91, T279
 polyphenols, 390, 946
 polysaccharide, M187, 1082
 polysulfone hollow fiber, M145
 polyunsaturated fatty acids, W351, 389,
 831
- pomegranate, 390
 pooled and environmental samples, 276
 popular press, 1067
 population, M74
 population density, M322
 porcine, T251, W240, W463
 porcine digestible peptides, M235
 porcine lactoferricin, 765
 pork, 149, 969
 pork quality, 940, 966
 post-acidification, T93
 post-hatching holding time, T295
 post-insemination, T266
 postmortem processing, 969
 postmortem semen collection, 358
 postnatal, T7
 postnatal growth, 635
 postnatal health, 914
 postpartum health, 488
 postpartum ovulation, M299
 potassium, 746
 potassium carbonate, 883
 potassium hydroxide, 447
 poult hatchability, T143
 poultry, M132, M141, M248, T144,
 W224, 85, 86, 184, 309, 446, 466,
 532, 588, 968, 1012, 1027, 1091
 poultry diets, M266
 poultry fat, M367
 poultry meat, 479
 poultry nutrition, 683
 poultry performance, 811
 poultry welfare, T9
 PPAR γ 2, W157
 preadipocyte, W154, W155
 prebiotic, M249, M255, W257, 88, 173,
 628, 658, 971
 precision dairy farming, W96, 87, 248
 precision feeding, 562
 preconditioned, 774
 preconditioning, W349, 13, 780, 1004,
 1005
 predicted performance, 50
 prediction, M185, 405, 618
 prediction of cutting parts using GRM,
 T166
 preference, T1, T354, W140, 457, 910
 pregnancy, M286, W272, 121, 1020
 pregnancy diagnosis, W335
 pregnancy loss, M199
 pregnancy rate, T282, T322, W407, 530
 pregnant, T258
 pregnant ewes, W444
 preharvest stress, 966
 prelambing, W439
 prenatal, 480
- prenatal programming, M154, W150
 prepartum bST, M299
 prepartum diet, W438
 prepartum nutrition, W147
 prepubertal, 406
 preservatives, W130
 preslaughter stress, 967
 presynchronization, 162
 prevalence, 589, 773
 preweaning growth, 404
 preweaning supplementation, T273
 price risk, 1016
 primiparous, T150, W425
 principal component analysis, M77,
 M82
 principal components, M79, 615
 PRL, W290
 probiotic, M27, M195, M255, T157,
 T295, W1, W4, W14, W46, W47,
 W50, W53, W55, W185, W211, 88,
 89, 90, 91, 134, 135, 173, 269, 337,
 624, 626, 627, 628, 629, 656, 657,
 658, 952, 953, 954, 956, 971, 973,
 978, 980, 1079
Procambarus clarkii, 1084
 process cheese, M181, M183, M184,
 T73, 790
 processed cheese, 794
 processing, T225, W389, 374
 processing cooperative, W187
 production, M2, T214, T215, T432,
 W26, 183, 435, 867, 868
 production cost, M254
 production efficiency, M405, 82, 1135
 production performance, M334, T410,
 T411
 production-reproduction relationship,
 720
 productive performance, 1143
 productivity, W430
 profile fatty acids, T28
 profit, 703
 profitability, T25, W303, W304, W470,
 719
 progeny, M237, T141
 progesterone, M277, M286, M289,
 M294, T266, T267, T268, W276,
 W279, W282, W285, W287, W289,
 W407, 26, 370
 progesterone decay, 525
 programming, 777, 917
 pro-inflammatory, 590
 prolactin, M146, W200, 705
 prolamin, W393, W433
 promotion, 580
 promotion and tenure, 103

- propionate, 22, 356
Propionibacterium acidipropionici, 22
 propionic acid, 1055
Prosopis juliflora, M129
 prostaglandin, T270, 369
 prostaglandin F_{2α}, T268, 171, 482, 484
 prostaglandin interval, 778
 prostaglandin receptors, 369
 protease, M173, T211, T218
 protease enzyme, T221, 1104
 protected fat, M152, W336
 protected protein, T422
 protein, M363, T425, T427, W75, W371, W419, W448, 62, 306, 377, 386, 644, 736
 protein adequacy, W364
 protein and energy models, M411
 protein composition, T170
 protein concentrate, T101
 protein degradation, M430
 protein deposition, 680
 protein digestibility, T240
 Protein Edge, 216
 protein fractions, M439
 protein interactions, W68
 protein kinase A, T293
 protein level, T450
 protein purification, W215
 protein quality, 510
 protein source, M235, T58
 protein supplementation, M161, M166, M398
 protein supplements, 1102
 protein synthesis, T261, 6, 109, 604, 1054
 protein trafficking, 602
 protein turnover, W158, W159
 protein utilization, M209
 protein value, W118
 proteolysis, M100, T72, T77, T169, 802
 proteolytic enzymes, 307
 proteome, M52, T276, 965, 992
 proteomics, M25, W68, 833
 protozoa, T385
 protozoa, T362
 PRRSV, T19
 PSPS, M395
 psychrotrophs, 448, 449
 puberty, T267, 1121
 public land, 572, 573, 574, 575, 576, 577
 public opinion, 1026
 PUFA, T300, 150
 pulmonary arterial pressure, W302
 pulmonary artery, T298
 pulmonary hypertension, W296, 363
 pulmonary hypertension syndrome, T44
 pulsed electric field, W61
 pumpkin, 758
 pure culture, M347
 purge, T170
 purine analysis, M433
 pyridoxine, M408, T395
 pyrosequencing, M49, W51, 270, 293
 pyruvate carboxylase, W299
- Q**
- QPCR, T44, 983
 - qRT-PCR, W151, W152
 - QTL, 924
 - quail, T37, W232, W250, 150
 - quality, M107, T318, T319, W44, 376, 480, 969
 - quality assurance, M449
 - quality evaluation, T66
 - quantitative magnetic resonance, T136
 - quantitative PCR, M68
 - quantitative traits, M75
 - Quebracho extract, M371
 - Queso Fresco, T80
- R**
- rabbit, M232, T62, T63, T65, T192, W249
 - ractopamine, M470, 379, 381, 1035
 - ractopamine hydrochloride, 378, 382
 - Ragusano cheese, T76, 951
 - ram, M330
 - ram biostimulation, 25
 - Rambouillet, M463
 - random regression, M78, W38, 926
 - randomized controlled trials, 423
 - rangeland, W306, 630
 - rapid detection, M305
 - rapid visco analyzer (RVA), T67
 - rapidly fermentable carbohydrates, 876
 - Rathke's pouch and neuroectoderm, 643
 - ratio, 494
 - raw milk, W59, 308
 - raw milk storage, M182
 - RDP, 426
 - reactive oxygen species, T22, 660
 - real-time PCR, M140, M433, T362, T379, T394
 - real-time RT-PCR, W264, 649
 - real-time ultrasound, W456, 187
 - rearing behavior, W290
 - rearing environment, 326
 - receiving, W383
 - recipient females, M19
 - recipients, W170
 - recombinant protein, M145
 - reconstituted sorghum, M412, M413
 - records, 1066
 - recycled N, 426
 - red crab meal, M272
 - reduced-sodium, 794
 - refugee, W92
 - regulation, T323, 213, 606, 607, 1122
 - reindeer, M327
 - relative organ weight, M270
 - relaxin, M203
 - release, 296
 - reliability, M3, 617, 620
 - removable chicken house, 543
 - renin, T286
 - rennet, 132
 - rennet coagulation, 804
 - rennet curd, M174
 - renneting, 801
 - repeatability, 851
 - repeatability coefficients, T316
 - reproduction, M197, M293, T51, T310, T331, T369, W280, 166, 169, 172, 194, 195, 234, 430, 436, 532, 697, 1021, 1066
 - reproduction items, W288
 - reproduction performance, 528
 - reproductive performance, W437
 - reproductive physiology, 230
 - reproductive tract, 168
 - reproductive traits, W34
 - requirement, M432, M467, 7
 - requirement model, 427
 - research, 577
 - research animal law, 609
 - research model, W280, 172
 - reserpine, W20, W21
 - residual feed intake, M85, W307, 12, 69, 537, 911
 - resistance, W100
 - respiratory disease, 662, 663
 - respiratory system, T474
 - response surface model, M204
 - restraint, T3
 - restricted intake, 1041, 1045
 - restrictive feeding, W366
 - resveratrol, 976
 - resynchronization, W283, 165
 - retention, 545
 - retention/balance, T230
 - retinal image, 1019
 - retinol-binding protein, T23
 - revenue insurance, 1016
 - reverse osmosis membrane, M189
 - review, 102
 - rfi, 115, 851
 - RFID, W83

- RFRP-3, 711
rheological properties, M174, 948
rheology, M188, 945
rib-eye area, M87
rice bran extract, M381
rice meal, W134
rice straw, 895
ricotta, T82
riparian areas, W316
risk, 855
risk management, 1016
RNA, 186
RNA quality, W406
RNA-Seq, 290
RO membrane, W57
roasted, T413, T443
Rongai, W112
rooster, M244, M283
roosters, M220
roosters and chicks, M222
ropiness, 223
ropy fermented milk, W48
ropy milk, W49, 223
rotational, 231
rotavirus, 310
roughage, 383
roughage delivery, W388
roughage level, 754, 1035
roughage source, M418
roughage:concentrate ratio, M14
routine genetic evaluation, 785
RPLys, 219
RPMet, 219
RT-PCR, T153, W147
rubber flooring, M1, M2
rumen, M379, M381, M396, T363, T370, T371, T377, T378, T379, T388, T394, W406, 396, 567, 741, 746, 748, 1029, 1039
rumen activity, M344
rumen bacteria, M378, T382, T446
rumen degradability, M400
rumen degradable nitrogen, W350
rumen degradable protein, T426
rumen degradation, W419
rumen development, T353, 39
rumen epithelia, 1145
rumen epithelial cells, T289
rumen fermentation, M346, M357, M443, T355, T401, T447, 40, 481, 747, 872, 1059, 1137
rumen fluid, M130, T289
rumen fungi, M377, M417
rumen microbial diversity, 728
rumen microbiology, 313
rumen microbiota, T368
rumen microflora, T386
rumen pH, M409, W447, 48, 483, 666, 1052
rumen protection, 211, 1051
rumen protozoa, M416
rumen simulation technique, M443
rumen stability, 527
rumen temperature, T272
rumen undegradable protein, W365
rumen-protected choline, W437, 879, 1143
rumen-protected methionine, W437, 1143
rumen-protection, T424, 217
Rumensin, M390, T385, W386
ruminal acidosis, 749, 1144, 1147
ruminal artery and vein, W355
ruminal bacteria, M347, 382
ruminal bacterial community, 748
ruminal contents, M306
ruminal degradation, M380, M436
ruminal fermentation, M359, T132, T465, W344, W350
ruminal kinetics, 461
ruminal metabolism, M397, T399, T400
ruminal methane, M340
ruminal microorganisms, T403
ruminal pH, M422
ruminal pressure, 1047
ruminal redox potential, 750
ruminally protected lysine, T418, 215, 218
ruminally undegradable protein, W341
ruminant, M14, M345, M356, M439, M442, M452, M465, T161, T407, T408, T444, W192, 427, 967
ruminant nutrition, T359
ruminating, M106
Ruminococcus, T371
RUP, M363, M371
Rusitec fermenters, M365
ryegrass, 816
- S**
16S r RNA gene sequence, M45
16S rRNA gene, 107, 293
16S-V3, W17
S. aureus, 482
S. cerevisiae fermentation product, W214
SAA3, T460
Saanen, 405
Saanen dairy goat, M402, M403
Saccharomyces cerevisiae, T363, T387
Sahiwal heifers, 1100
sainfoin, M114, M115
saleable meat, T164
salinity, W312
Salmonella, W67, W101, W334, 91, 181, 269, 346, 351, 372, 445, 448, 449, 451, 538, 540, 692, 1089
Salmonella colonization, 442
Salmonella Enteritidis, 1093
Salmonella serogroups, 371
salmonellosis, M102
salt substitutes, T73
salt whey, M184
salt-in-moisture, 298
sampling, T323, 246
sampling bias, 16
sampling protocols, T430
Santa Inês, M455
SARA, T390, T393, 841
satellite cell, W155, W158, W159, 477
satiety, T36, T58, T94
saturated fatty acids, M157
SCC, 859
scholarship of teaching, 579
science, 54
season, W37, 1062
season of birth, 404
seasonal, 234
seasonal anestrus, 25
seasonal reproduction, T467
seasonal variation of milk, T78
seasonality, W163
secondary compounds, 267
secondary metabolites, M351
secretions, 531
sediment loss, W176
seeding rate, T108
Sel V, gene expression, W264
selection, 788
selection index, 432
selective genotyping, M460
selenium, M329, T381, T431, W144, W235, W236, W398, 327, 401, 647
selenoprotein, W264, 830
selenosis, W312
Sel-Plex, W229
SEM, 798
semen, 991, 994
semen storage, 995
Semen Vaccariae, 958
seminal plasma, 370
seminal vesicles, 534
seminiferous, T287
semi-scavenging, W189
semitendinosus, T177
Senepol, M90, T173
sensory, M257, T92, 795
sensory analysis, T75

- sensory evaluation, T74, 503
 sensory property, 950
 sensory quality, 796
 separation, W254
 septicemia, M28
 sequential evaluation, 931
 serial slaughter, 114
 sericea lespedeza, 14
 serotonin, T7, W177, 316, 470, 471
 serotypes, 445
 serpinb5, W164
 serum, M25, M130, W235
 serum antibody titers, M56
 serum biochemical parameters, W294
 serum biochemistry, M206
 serum enzymes, W246
 serum lipoproteins, W295
 serum protein, 302, 641
 serum whey, 949
 sesame straw, M378
 sex, T180
 sexed semen, W30, W288, 887, 888, 890
 sex-sorted, 889
 SGLT1, 357, 1120
 shade, W313
 shall ewes, M287
 sham dustbathing, 258
 shear force, M165, 1035
 shearing, T456
 shearing force, T115
 sheep, M291, M331, M351, M352, M420, M454, M456, M457, M459, M470, T258, T439, T458, W143, W145, W440, W441, W443, W446, W453, 9, 406, 408, 431, 432, 572, 573, 575, 639, 712, 752, 755, 892, 893, 999, 1132
 sheep and goat milk, T95
 sheep and goats, W15
 sheep industry, 576
 shelf-life, 178, 225, 308
 shell eggs, 376, 1092
 shell strength, T190
 short-chain fatty acids, T423, 1144
 shrimp heads meal, M272
 shrub, M420
 sialic acid, 661
 sick, 424
 sidewall plastic, W121
 signaling protein, T261, W298, 1054
 silage, M68, M116, M117, M369, W110, W111, W117, W123, W127, W139, 47, 818
 silage characteristics, W119
 silage conservation, W333
 silage fermentation, M109, M110
 silage inoculant, W128, 1032
 silage mixtures, W109
 silicon content, T117
 silo heating, W128
 silvopastoral, M129
 simulation, 807
 single cell oil, W77
 single-chain antibody fragment, M139
 single-nucleotide polymorphism, M65
 single-step evaluation, 614, 616
 single-step procedure, 612
 sire conception rate, W30
 sire line, T181, 110
 skeletal, W251
 skeletal muscle, 477, 768
 skeletal muscle oxidative damage, 830
 skeletal separation, 322
 skin quality, 517
 slaughter, 36, 608
 slaughter endpoint, T451
 slaughter traits, 658
 SLC, 312
 slick hair gene, W184
 slow-release urea, T417
 slurry, W461
 small flock, 1012
 small interfering RNA, 960
 small intestinal mucosa, W20
 small intestine, 515
 small peptide, T454
 Smart Nose, 797
 smart tag, W83
 SNP, M92, W24, W275, 71, 788
 SNP NPY LEP IGF-1, M80
 SNP simulation, 74
 social and physical environment, 429
 social behavior, T13
 sodium, T73, 1108
 sodium bentonite, M256
 sodium bicarbonate, M35
 sodium bisulfite, W319
 sodium butyrate, M227
 sodium gluconate, 127
 sodium hydroxide, M378, M417, W417
 sodium metasilicate, 448, 449
 sodium reduction, 297
 Soft Chalk software, 899
 soil nitrogen, T127
 solid feed, T344
 solubility, W72
 soluble non-ammonia nitrogen, W361
 soluble yeast protein extract, T399, T400
 somatic cell count, T306, W4, W42
 somatotropic axis, M279, T290, T291, T294
 sonication, W62
 sorghum, W252, W342, 500
 sorghum forage, M382
 sorghum silage, 815
 sorting, T332, T352, W403, 565
 Southern Great Plains, 857
 sow, M269, M334, T232, T246, W198, W220, W233, W269, W270, W271, W465, 412, 760, 762, 868, 1063, 1065
 sow group housing, 409
 sow housing, T4, T5
 soy, T91, T92
 soy isolate, T311
 soy molasses, W421
 soy oil, M425
 soy oil residue, M423
 soybean, M437, T108
 soybean grain, M152, W336
 soybean hulls, W134
 soybean meal, W402, W442, 152, 491
 soybean meal (SSBM), 1053
 soybean meal origin, W223, W263, 141
 soybean meal survey, 510
 soybean oil, M152, T421, W336, W370
 soybean small peptide, T455
 Spanish Colonial Horse, W179
 special recognition award, 32
 speciation, M46
 sperm, T275, T276, T278, W463, 251, 531, 533, 534, 990, 993
 sperm cryopreservation, T277
 sperm motility, M203
 sperm penetration assay, T275, 993
 sperm production, 191
 sperm viability, T285
 spermatogonia, T286
 spermatological parameters, M283, T62, T65
 spermatozoa, 124
 spermatozoa morphology, 923
 spinning fineness, 431
 spirulina, 306
Spirulina platensis, 974
 spleen lymphocytes, M39
 spontaneous heating, 461, 462
 spores, T89
 sports recovery, 221
 spray washing, 447
 spring-born beef calves, 1001
 Sprint Rapid Protein Analyzer, T87
 SQA-Vb, 170
 SR141716, 682
 SREBP, 315, 960
 SRNS, W447

- stable nitrogen isotopes, T414
 Stafac, T254
 stage of lactation, T326
 stage of maturity, M112
 stakeholder, 1028
 stall, 411, 419
 stall design, M7
 stall housing system, 1014
 stall surface, 861
 stallion, 124
 standardized ileal amino acid digestibility, M216
 standardized ileal digestibility, M218
 standards, 1026
Staphylococcus, W59
Staphylococcus aureus mastitis, M52
 Starbio, yeast, 1103
 starch, M108, M442, 139, 569, 659, 1061
 starch degradability, W423
 starch digestibility, W393
 starter, T320, 396
 starter distillates, T102
 STAT5, W156
 STAT5b, W153
 statistical methods, 423
 statistical power, M460
 statistics, 282, 424
 steam, M377
 stearoyl CoA desaturase, M148
 steer, M131, T34, W308, W375, W383, 19, 379, 385, 1036, 1138
 step-up, 383
 stillbirth, 926
 stochastic, 807
 stochastic modeling, 56
 stochastic simulation, 855
 stochasticity, T368
 stocker, 197
 stocker cattle, 387
 stocking density, 904
 stocking rate, W320, 821
 storage condition, T90
 storage temperature, T70
 strains, M64, M236, M237
 stratification, W95
Streptococcus thermophilus, 955
 stress, M1, M101, M281, T4, T8, T273, T300, 255, 414, 418, 524, 583, 693, 777, 940, 941, 968
 stress hormones, 421
 stress response, M280
 stride variables, W179
 string cheese, M179
 student engagement, T475
 student learning, 898
 student presentations, 229
 stun, 588
 stunning, 416
 subclinical ketosis, W397
 subcutaneous adipose tissue, 825
 substitution approach, 120
 success, 103, 104
 suckling aggressiveness, T292
 suckling lamb, 324
 suckling piglets, W209
 Sudangrass, M337, T6
 sugar beet pulp, T374
 sugar beet tops and crowns, W119
 sugar cane, M360
 sugar transporters, 689
 sugarcane, tropics, W186
 sugars, W421, 1059
 sulfate water, 31
 sulfur, W438, 207, 541, 551, 552, 556, 557, 558
 sulfur amino acids, 274, 489
 sunflower, 505
 sunflower crushed, W134
 superovulation, W300
 super-shedder, 439
 supplement, M414, W369, 198, 737
 supplemental online resources, 228
 supplementation, M399, M415, W441, 27, 29, 202, 380, 386, 734, 853
 supply, M432
 suppression, 651
 survey, T321, T336, 42, 864
 survival, 434, 627, 953
 susceptibility, W99, 279
 sustainability, 24, 237, 1022
 sustainable, 1028
 sustainable manufacturing, T98
 swamp buffalo, M339
 sward characteristics, 821
 sward structure, 819
 swath grazing, 101
 sweet sorghum silage, 814
 swine, M30, M233, M234, M262, M293, M295, M335, T158, T218, T250, W103, W470, 415, 416, 490, 614, 629, 681, 867, 990, 991, 1064, 1066, 1123
 swine industry, 82
 swine manure, W318, W461
 symbiotic, T104, T105
 symposium, 572
 synbiotic, M67
 synchronization, 164, 536
 synchronized estrus., M288
 syneresis, T68
 synergism, M379
 synovial fluid, 831
 system dynamics, W187
 systems biology, 729
- T**
- T regulatory, 651
 T1R3, 1116
 T-2 toxin, 345
 table eggs, W190
 Taguchi approach, M39
 tail docking, 238
 tail wagging, T55
 tall fescue, T107, W355
 tallow, T385
 tannin, M114, M115, M344, T427, T428
 tanniniferous legumes, M191
 tannins, M376, W331
 Tasco, T333
 taste, 1122
 TBARS, M240, T184, W173, 185
 TDN, 462
 teaching, 227
 teaching animal sciences, 578
 teaching effectiveness, 578
 teaching methods, T475
 teat dip, M43, M96, T325
 technical glycerin, M241
 technology transfer, 80
 telemetry, 18
 telomerase, 921
 telomere, 921
 temperament, M17, M18, M19, 421, 524, 537, 912
 temperature, T305, 188, 251, 400, 703, 767
 temperature humidity index, T304, T329
 temperature monitoring, 87
 tenderness, M73, M156, 321, 787
 tenure, 580
 terminal sire, 751
 terpene, M130
 test-and-cull, 56
 test-day milk yield, T304, W36
 test-day protein yield, W38
 testes, T284, T287
 testis histology, 358
 testosterone, T13
 textural properties of LMPS mozzarella, T78
 texture, M180, T74
 TG deletion, 284
 TGF, 638
 thal, 589
 thawed semen, W339
 thermal imaging, 860
 thermal preconditioning, M303

thermogenesis, 23
 thermography, M44, W311, 829, 858
 thiazolidinedione, M200
 third cycle, W295
 Thoroughbred, W171
 3-D structure, 801
 305-day milk-, protein- and fat yield, W193
 threshold model, M83
 threshold-linear model, M84
 thyme, W12
 thymol, T22
 thyroid hormones, 105
 thyroxine, T296
 tibial dyschondroplasia, M25, M308
 ticks, W10
 tifton, T109, T111
 timed AI, T265, T269, W279, 161, 848, 849
 timothy, M392
Tina biofilm, 797
 tissue, W459, 320
Tithonia diversifolia, 505
 TME, 338
 TME_n, T198
 TMR, M450
 TNC, M392
 TNF- α , T23, 529
 α -tocopherol, W250
 tocopherol, M240
 tolerance, T52
 toll-like receptor, 311, 603, 956
 tomato pomace, M318
 tonic immobility, T10
 top dress, 379, 381, 1053
 Torba yoghurt, T97
 total mixed ration, M429
 total phosphorus, 1113
 total protein, T87
 total RNA, W406
 total serum protein, 839
 toxicity, 869
 toxin, M99
 trace mineral, M33, M137, W227, W228, W239, W420, 46, 177, 522, 548, 1014
 trace mineral supplementation, M333, 868
 traceability, 1017, 1018, 1019
 tracking, W83
 training, 805, 806, 933, 939
trans stereoisomer, M163
 transcription factor, 704
 transcriptome, 210
 transcriptomics, 287, 391, 729, 730, 1125

transformed data, M83
 transgenic corn, M245
 transgenic maize, M245
 transition, M404, T419, W396, W418, 716
 transition cow, M197, M200, T389, T260, T405, W299, W403, W413, 1041, 1060, 1124, 1125, 1133
 transition diets, W397
 transition period, W430
 transketolase, 1073
 transmitters, 1080
 transport, M23, 418, 498, 940, 941, 942
 transport loss, 417
 transportation, T35, 389, 943, 944
 transporter, M233, T41, W271, W358
 transthyretin, 365
 treatment, M192
 tree species, 1050
 trenbolone acetate, W159
 trends in education, 1072
 T-RFLP, T250
 triglyceride, W106, 315
 triticale, W262
 triticale DDGS, 727
 tropical, W185, 854
 tropical dairy, W10
 tropical grass, M166, T112, T117, T125, W138, 459
 tropical pasture, M397, M398, M399
 tropical sheep, M466, M467
 tropics, 1101
 TRPC3, T162
 TRPM5, 1116
 true amino acid digestibility, 340
 true and apparent metabolizable energy, T200
 true ileal digestibility, M209
 true proteins by Kjeldahl, T88
 true proteins by Sprint Rapid Protein Analyzer, T88
 true proteins in dairy products, T88
 trypsin, 802
 trypsinogen, T251
 tryptophan, M230, 493, 494
 tulathromycin, 663
 tumor necrosis factor alpha, T299
 tunnel ventilation, W324
 turkey, 105
 turkey, M319, T183, T184, W221, W245, W267, 106, 262, 348, 599, 702, 922, 977
 turkey performance, W262
 turkey reproduction, 365
 turkey reproductive performance, M303
 Turkish yoghurt, 950

turmeric powder, M318, W236
 turning, 174
 26RFA, W469
 two-stage weaning, M281
 Tylan, T217
 type traits, M202, W39, 931

U

udder composite, W39
 ultrafiltration, T82, 305
 ultrasonic marination, 372
 ultrasonography, M288
 ultrasound, T167, T471, W314, W352, W464, 323, 752
 ultrastructural measurements, M313
 ultraviolet light, W98
 umami, 145
 umbilical blood flow, M278
 undergraduate, T54
 undergraduate education, T475, 901
 uniformity, T149
 unsaturated fatty acids, M157
 urea, T83, T445, W249
 urinary purine derivatives, T430
 urine and feces, W323
 urine pH, 666
 US Holsteins, W25
 uterine blood flow, M278
 uterine disease, 595, 596
 uterine infection, 1095
 uterine infections, 1079
 uterine programming, 852
 uterus, M295
 UV radiation, M176

V

vaccination, 281, 333, 598, 654, 655, 770, 837
 vaccine, M54, T18, 282, 591, 653, 838
 vaccine response, M88
 vacuum, 301
 vacuum packaging, W69
 vacuum processing, 732
 vagal afferents, 1115
 vaginal pH, M301
 validation, M383
 valine, M214, 499
 vancomycin, 442
 Vaqueiro, T111
 variance component estimation, 929
 variance components, M78
 vasoconstriction, M122, W355
 veterinary, W82
 VFA, 428
 viability, W420
 viable and apoptotic cells, M309

village chicken, W189
vine 90 d, W112
virus propagation, M55
viscosity, M188, T203
vitamin, 697
vitamin A, 550
vitamin A formulation, 527
vitamin B₁, 1073
vitamin B₁₂, M201, T297, W427, 696
vitamin C, W206
vitamin D, T30, 20, 800
vitamin E, M150, M151, T30, T233, W16, W19, W207, W349, W359, 175, 178, 699
vitamins E and C, 319
vitreousness, M400
vitrification, T281, 996
vocalization, 255
volatile, 131
volatile fatty acid,
volatile fatty acid and enzyme activity, T248
volatile fatty acids, M397, T406, 741
volatile organic compounds, M409
volatiles in dairy products, T102
volunteer waiting period, 484

W

Wadi sheep, T47
Wagashi cheese, M100, 307
Wagyu, M74
warm-season grass, W117
waste management, W97, 237
waste pinto bean grain, W449
water, 633, 1030
water activity, M185
water analysis, W309
water intake, W330
water quality, W317, 92, 634
water runoff, 540
water soluble calcium, 127
water treatment residuals, 96
water-holding capacity, M385
water-soluble carbohydrate, 815
weaned pig, T238, T247, W259
weaning, M326, M473, T31, T320, T344, W311, W401, 13, 407, 693, 770, 850, 1004
weaning age, W362
weaning transition, 483
weaning wt, 857
weanling pigs, M264, W210
wean-to-service interval, W465
weather, W138
web-based teaching, 899
weight estimation, 125, 126

weight gain, M332, M337, W377
weight loss, M277
weight management, T94
welfare, T4, T11, 238, 260, 416, 585, 588, 608, 861, 863, 935, 942, 1027
well-being, M5, 410
wet corn distillers grains, W340
wet corn gluten feed, 566
wet distillers grains, 200, 201
wet distillers grains with solubles, 10, 206, 208, 1044
wheat, T225, W357, 1048
wheat bran, 761
wheat DDGS, M424, W344, 199, 1139, 1140
wheat digestibility, 334
wheat dried distillers grains with solubles, W367
wheat forage, 891
wheat hydroponic forage, T120, W444
wheat pasture, 98, 198
wheat screening, T200
wheat stems, T115
wheat straw, W389
wheat-based DDGS, 745
wheel traffic, W131
whey, M175, T82, T101, T103, W71, W74, W77, 128
whey peptide, W81
whey protein, T99, T106, W72, W73
whey protein concentrate, 129, 304
whey protein/k-casein complexes, 132
whey proteins, W70
whey retentate, M189
wheying-off, T80
White Leghorn, 370
white rot fungi, W107
white striping, 330
whole barley grain, W417, W426
whole carcass enrichment, 371
whole corn, W205
whole farm nutrient balance, W329
whole genome, 71, 788
whole genome association, 287
whole grain, W252
whole milk powder, T74
whole soybean, T413, T443
wide pore ultrafiltration, 949
wild ginseng, M267
wild ruminants, 57
winter rations, W366
winter supplementation, 782
winter wheat, T134
wintering system, 1037
wireless sensor, 1052
Wnt family, M36

wooden vat, 951
wool, M462, M463, 431, 753
wool comfort factor, 1102
WPC, 130
writing skills, 1067
WSC, 117

X

x-ray imaging, T66
xylanase, T212, 1109
xylanase and phytase, T200
xylitol, M183
xylo-oligosaccharides, T248

Y

yak, M72, M73
yak casein hydrolysate, T100
yearling steer, 202
yearlings, W174
yeast, M388, M389, T24, T362, T381, T404, W115, W126, W383, W420, 658, 957, 971
yeast autolysate, 265, 1076
yeast culture, T358, T369, 569, 1137
yeast extract, T140
yeast proteins, T246
yeast supplementation, T349, W357
yeast β-glucan, T340
yield, W90, W131
yield grade, T26, W368
yogurt, T91, T92, T93, T94, T95, T96, T98, W47, W51
yogurt starter, W50
yolk color, T190, 672
young bulls, M151, M170, M373, M374, M375, T165
youth, 83
youth equine organizations, T472

Z

ZAD, 895
Z-Box, M395
zearelenone, M295, W243, W244, W246, W248
Zebu, M79, T167, W379
zeranol, M471, 8
zilpaterol, M470
zilpaterol hydrochloride, M325, W160, W161, 384
zilpaterol-HCl, 114
zinc, M373, T465, W231
Zn-binding capacity, T100
zoo, 935
zymomonas, M444