

Index

a

agri-ecological approach 139
 agricultural policy 350
 – land use 511, 512
 – research findings 519
 – scientific findings and political action 509
 agroforestry 18, 75, 123, 124, 142, 415
 Agrowood project 9, 509
 air capacity 128, 129
 alley cropping 141
 allometric biomass function 180–182
 allometric power equation 141
 Androscoggin 178
 annuity 320
 antagonist effect 229
 ArcGIS 3D analyst 251
Arma custos 211
Arvicola amphibius 201
 ash content 475, 478
 ash melting behaviour 475, 479
 ASTER data 265
 available field capacity 176
 available soil water capacity 29
 – calculation 32

b

bark-ash pellets 270 *see also* RIA pellets
 beech wood 254
 beech wood composites 493
 BERTA *see* *Thüringer Ackerebene Bioenergy Region*
 biodiversity 7, 17, 18, 63, 64, 72, 74, 75, 76, 96, 97, 100, 101, 102, 105, 117, 123, 139, 145, 359, 394, 513, 516, 520
 bioenergy 15, 344, 347, 360, 386
 bioenergy regions 125
 bioenergy strategy 393

biofuel trade 63
 biogenic energy sources 139
 biological control agents 229
 biologically-treated wastewater 151
 biomass calculation 173
 Biosphere 3D software 106
 bird's eye perspective 107, 108
 Braun-Blanquet 66

c

C/N ratio 66, 68, 69, 71
 calorific value 447, 475
 capital recovery factor 319
 cascade utilisation 20
 certification 333, 398
Chrysomela populi L. 199, 200, 204, 205, 206, 208, 209, 210, 218
 circle-fitting method 238
Cleonice callida 209
 climate management plan 433
 climatic water balance 151, 152
 common agricultural policy 350, 351, 352, 359, 360, 367, 368, 510, 511, 512, 520, 521
 community forest 407
 conifer wood 497
 contribution margin calculation 318
 convection drying 448
 cooperation-oriented business model 293
 crop yield modelling 29, 30
Cryptodiaportha populea 200, 201
 Czech Republic 354

d

decision support system 19
 defoliators *see* *Nematus papillosus*
 dendrometers 149, 150
 Deutsche Bahn AG 257
 DIN CERTCO standard 398

DIN EN 16214 395
 DINplus certificate 401
 diversity based grassland mixture 142
 draught stabiliser 459
 drum dryers 448
 dynamic capital budgeting 318

e

Eckolstädt 452, 455
 ecological focus area 118, 329, 331, 341, 344, 367–372, 394, 510, 520
 ecologicalisation 367
 economic sensitivity analyses 517
 edge designs 109, 110, 114, 115, 117
 eligible hectare 351
 energy policy 349
 energy supply 15
 – diversification 63
 environmental impact assessment 355
 erosion protection 38
Eucalyptus spp. 356
 EU LEADER programme 309, 386, 430
 European Agricultural Fund for Rural Development 367, 511
 European Biomass Association 352
 European water vole *see Arvicola amphibius*
 evapotranspiration 46, 50, 51
 exponential biomass function 181

f

F-test 111
 federal forest act 392, 513
 fertilisation 194
 fertilisers 187
 field geometry 162, 163, 166, 167
 field wood 243, 249, 251
 filtering 236
 Flossenbürg 281
 forest residue 269
 forest wood 435
 formaldehyde 503
 framework planning 380
 Frankenberg 249
 Freiberg 248
 Friedland 126
 Froling Turbomat500 308

g

Göttingen Region Energy Agency 421
 German Academy of Sciences 514
 German Agency for Renewable Resources 515
 German agriculture act 512
 German federal nature conservation act 88

German national climate initiative 433
 German renewable energies act 304, 414, 433, 511
 global net solid biofuel trade 63
 GLUE method 52
 grass-clover mixture 142
 grassland biomass 140
 grassland vegetation 144
 great red poplar leaf beetle *see Chrysomela populi*
 greenhouse gas emissions 45
 – reduction 63
 greening obligations 368
 ground-based laser scanner 19
 groundwater recharge 49–51
 growth characteristics 173
 Gut Rixdorf/Lebrade 306

h

habitat islands 85
 hay combustion 140
 hedgerow 248, 249
 herbicide application 65
 hotspot analysis 261, 265
 hydrological response unit 52

i

individual model 295
 individual-based modelling 218
 informal planning 336, 342, 381
 integrated pest management 206
 internal bond 502

k

Knappenrode 248

l

landscape aesthetic theory 116
 landscape change 105
 landscape planning 87
 landscape tending operations 408
 Lauta 455–457
 LEADER programme *see* EU LEADER programme
 leaf area index 46
 leaf biomass 153
 leaf N concentration 191, 192
 Likert scale 332
Linobia coccinellae 206, 207
 litter bag technique 131

m

Malitschkendorf 455–457
 management intensity 72, 75

manual digitisation 251
 marketing model 296, 297
 Massen 248, 252
 Matrix group 178
 Max group 178
 mean annual biomass increment 174
Miscanthus 75
 Mittelsachsen 82, 87
 mixed cropping systems 144
 modulus of rupture 502
 monoculture 312
 multi-criteria evaluation 23, 25
 Münden group 178

n

N use efficiency 132, 133
 Nash-Sutcliffe model efficiency coefficient 49
Nematus papillosus 202, 204, 212, 213
 net N mineralisation 132
 Niedersächsisches Hügelland 64, 70
 Niedersachsen Network for Renewable Resources 420
 nitrogen budget 132, 133
 nitrogen fertilisation 187
 nitrogen fertilisers 187
 nitrogen uptake rate 188
 non-linear regression analysis 177
 nutrient balance 270

o

Oberlausitz 273, 276, 279
 oil heating 307
 online survey 106, 109–110, 306, 307
 optimum plant growth 151
 Organisation for Economic Co-operation and Development (OECD) 139

p

parameterisation 224
Parasyrphus nigratarsis 208
 partial harvest method 179
 particleboards 20
Paulownia spp. 356
 Penman-Monteith method 52
 permanent crops 352
 permanent grassland 368
 phosphorus 66
 photosynthetic nitrogen use efficiency 189, 190, 193, 194
 photosynthetically active radiation 67
Phratora vulgatissima 202
 plant-available phosphorus 66
 plantation management 479

plot-scale models 46
 PNUE *see* photosynthetic nitrogen use efficiency
 point clouds 236
 polypropylene 485
Populus maximowiczii × *Populus nigra* 64, 125, 189, 237, 469–480
 post hoc Pillai-Spur test 111
 post hoc test 339
 press fluids 143
 Preuss-Silvatec harvester 460
 producer groups 409
 profitability 321, 323, 325, 328
 public-private partnership 410

q

Quantum sensors 66

r

RaKliDa interpolation tool 260
 red poplar leaf beetle *see* *Chrysomela populi* L.
 regional planning 87, 376
 Reiffenhausen 125, 128
 RIA pellets 271–284
 riparian wood 253
 rust diseases 200

s

sawfly *see* *Nematus papillosus*
Schizonotus sieboldi 209
 scenic beauty rating 112–114
 Scientific Advisory Board for Agricultural Policy 393, 514
 sectoral spatial planning 380
 shadowing effect 238
 short rotation forestry 358
 shrub seam 100
 site-based yield estimation 173, 176
 site-specific flux 57
 socio-economic decision criteria 332, 340
 soil quality index value 29, 30, 40, 87, 176, 306
 spatial explicitness 229
 stakeholder survey 335, 338
 stocking density 174, 175, 176, 178, 179, 180, 181, 182, 183, 184
 stomatal resistance 48
 strategic environmental assessment 381
 subsistence use 406
 supply chains 5, 10–12, 291, 328
 supply contract model 296
 surface runoff 52, 57
 sustainability certification 394
 SWAT model 47, 51

t

- terrestrial laser scanning 235, 236, 238
- Thüringer Ackerebene Bioenergy Region (BERTA) 148, 149, 150, 151, 152
- Thüringer Becken 64, 70
- tillage time calculation 164
- transdisciplinarity 4
- triangulated irregular network 251

u

- universal soil loss equation 28
- urban development planning 378

v

- Vicat softening temperature 485
- visual landscape 337, 343
- visualisation
 - bird's eye perspective 107, 108
 - edge design 109, 110, 114, 115, 117
- voles 201
- volume functions 156

w

- WaSim model 47
- waste heat 414
- weed management 65
- whole crop digestion 140
 - specific methane yields 143, 144
- whole harvest method 179
- wood ash 270

x

- X-ray microtomography μ -CT analysis 493

z

- Zephyr water balance model 151