

INDEX

A

ABA (see abscisic acid)
abscisic acid (ABA), 107, 141, 144, 151, 154, 166, 167, 171, 178
 biosynthesis, 29, 31, 35, 36, 153, 155, 156, 157
 catabolism, 34, 42
 homoeostasis, 34, 36
 perception, 29, 36–38, 42
 signalling, 29, 30, 33, 36–41, 154, 156, 161, 166, 167, 171, 172
 transport, 34–36
antiflorigen, 133–146
ARFs (see auxin-response factors and ARF domain)
ARF domain, 8
auxin, 2–11, 14, 24, 63, 73, 76–81, 116, 121, 122, 126, 141, 152, 156, 165, 166–178
auxin/IAA domains, 8
auxin receptor, 1, 3, 4, 5, 7, 10, 24, 177
auxin-regulated gene expression, 8
auxin-response factors, 5, 169
auxin signal transduction, 1–10
azelaic acid, 101, 104, 105, 110

B

brassinosteroid, 54, 55, 63, 67, 71, 72, 76, 79, 121, 135, 141, 144, 152, 165–178

C

cross-talk, 2, 41, 49, 53, 55, 71, 74, 75, 76, 80, 83, 84, 92–95, 102, 106–109, 151–177
cytokinin, 18–25, 63, 161, 163–168, 173, 178
climacteric fruit, 61, 63
cytokinin-response factor, 22

D

dehydroabietinal, 104, 110
DELLA proteins, 49–57, 78, 92–95, 154, 155, 170, 171
DNA repair, 101, 107, 109

disulfide bond formation, 116, 117, 125, 127
dormancy, 30, 32, 152, 154, 155–161

E

ER stress, 101–110
ethylene, 8, 22, 40, 54, 61, 68, 86, 92, 93, 135, 141, 144, 151, 152, 158–178

F

F-Box E3 ubiquitin ligases, 165, 169
florigen, 133–146
flowering, 38, 50, 72, 92, 93, 106, 107, 133–146
FLOWERING LOCUS T, 133, 135, 138
fruit ripening, 61–68, 152

G

germination 30, 34, 35, 37, 38, 50, 54, 62, 102, 122, 151–162
gibberellins, 49, 50, 92, 116, 143, 155, 165, 166–168, 178
gibberellic acid 50, 151, 152, 155, 168
glycerol, 105, 110
glycerol 3-phosphate 105, 110
G-protein-coupled receptor 38
Green Revolution, 49, 50, 52, 57, 178

H

histidine kinase, 13, 16, 17, 25, 64, 68, 159, 166, 167, 173, 175, 178
histidine phosphotransfer protein, 13, 16, 17, 18, 19, 21, 25
hormonal cross-talk, 83, 84, 94, 95, 102, 106, 107, 177

J

JA (see jasmonic acid)
jasmonic acid, 53, 54, 106, 156
jasmonates, 83, 84, 95, 165, 166–169, 178
JAZ repressors, 83–95, 169
juvenility, 139, 145

L

light, 14, 24, 31, 40, 49, 53, 73, 76, 77, 78,
90, 101, 102, 135, 136, 145, 151,
156–162
light signalling, 53, 54

M

MAPK (see mitogen-activated protein
kinase)
mitogen-activated protein kinase, 22, 63,
64, 65, 68, 74, 76, 120, 123, 125, 126,
127, 159
multistep phosphorelay, 13, 16, 23, 25

P

peptide hormone, 115–127
phosphorylation cascade, 74, 80, 166, 173,
174, 175, 178
photoperiodism, 134
phytochrome, 53, 54, 77, 92, 107, 136, 156,
161, 171
phytohormonal cross-talk, 101
phytohormones, 49, 72, 115, 116, 126, 141,
165, 166–168, 173, 177, 178, 167, 168,
173, 178
polyubiquitination (see ubiquitination),
posttranslational modification, 116
proteasome, 5, 6, 49, 51–53, 55, 57, 67, 83,
84, 85, 92, 95, 166–172

proteolytic processing, 116, 117, 118, 122,
125, 127

R

response regulator, 13, 16, 18, 19, 20, 21,
22, 25, 138, 173

S

salicylic acid, 101–110, 135, 141, 144, 165,
166, 167, 168, 172, 178
SCF complex, 6, 169, 170, 171, 178
seedling triple response, 62, 63, 64
serine/threonine kinases, 68, 166, 172, 173
signal integration, 71
signal transduction, 1–10, 29, 30, 42, 71, 74,
75, 80, 84, 102, 135, 136, 138, 139,
141, 145, 146, 165, 166, 170–178
strigolactones, 161, 165, 166–168, 178
systemic acquired resistance, 102

T

temperature, 32, 78, 134, 135, 151, 156–162
TIR1/AFB, 3–10, 170, 177
transgenerational memory, 102, 103, 110
transmembrane receptor kinase, 122, 124
two-component signalling, 22, 24

U

ubiquitination, 77, 84, 85, 95, 166, 169, 171