
Index

A

Advance curve 9-38, 9-66,
9-67, 9-102
Advance rate 6-1, 6-2, 6-11, 7-7
Allowable depletion 1-4, 3-7,
3-12, 3-24, 4-7, 6-35, 9-2,
9-6, 9-66, 9-132, 9-164
Application depth 9-34, 9-36,
9-38, 9-42, 9-64, 9-65,
9-79, 9-99, 9-116, 9-120,
9-134, 9-136, 9-137, 9-152,
9-154, 9-169, 9-186
Application efficiency 4-4, 6-7,
6-12, 6-13, 6-14, 6-15,
6-20, 6-27, 6-32, 6-33,
6-58, 6-78, 7-11, 7-18,
8-11, 9-26, 9-30, 9-31,
9-32, 9-36, 9-37, 9-65,
9-66, 9-69, 9-79, 9-80,
9-100, 9-101, 9-103, 9-116,
9-130, 9-131, 9-148, 9-149,
9-150, 9-160, 9-161, 9-170,
9-171, 10-6, 11-3, 11-16,
11-18
Application efficiency low half
9-31
Application efficiency low quar-
ter 9-31
Application rate 1-2, 1-4,
2-20, 2-21, 2-22, 2-25,
2-29, 2-38, 3-16, 5-4, 6-1,
6-25, 6-28, 6-29, 6-33,
6-42, 6-45, 6-47, 6-48,
6-49, 6-50, 6-51, 6-54,
6-56, 6-63, 6-79, 7-24,
9-1, 9-41, 9-42, 9-133,
9-137, 9-146, 9-149, 9-152,
9-160, 9-185, 9-186, 9-189,
9-190, 9-203, 9-204, 9-205,
9-227, 10-12, 11-17
Arid climate 4-4, 4-6, 4-13
Automation 1-1, 1-5, 5-7,
5-8, 5-9, 5-10, 5-11, 6-5,
6-7, 6-8, 6-9, 6-14, 6-75,
6-77, 7-2, 7-15, 7-16,
7-33, 8-4, 8-8, 8-9, 9-196,
9-205, 9-214, 9-227, 10-12
Auxiliary water 4-3, 4-7, 4-13,
8-6, 8-10, 9-188, 9-190

Available water capacity 1-4,
2-1, 2-2, 2-3, 2-4, 2-5,
2-6, 2-7, 2-8, 2-10, 2-16,
2-28, 2-34, 2-37, 4-7, 6-6,
6-8, 6-9, 6-11, 6-35, 6-45,
6-50, 6-51, 7-1, 8-1, 8-6,
9-1, 9-2, 9-4, 9-5, 9-6,
9-8, 9-20, 9-26, 9-228,
10-5, 10-27
Axial flow pump 7-6, 7-12

B

Backflow 7-21, 7-25, 7-34
Basin bubbler 3-15, 6-2, 6-59,
6-63, 6-70, 6-74, 6-91, 10-10
Basin irrigation 2-18, 2-39,
3-16, 10-10
Benefit analysis 8-12, 11-2,
11-12, 11-17, 11-27
Big gun type 6-54, 9-42, 10-10
Blaney-Criddle 4-2, 4-4, 4-5,
4-13
Bubbler 3-15, 5-2, 5-5, 5-10,
6-2, 6-59, 6-63, 6-70,
6-74, 6-91, 10-10, 10-12
Bulk density 2-1, 2-4, 2-5,
2-16, 2-23, 2-28, 3-10,
9-4, 9-5, 9-6, 9-10, 9-12,
9-17, 9-18, 9-19

C

Carryover soil moisture 11-17
Catch container 9-33, 9-34,
9-35, 9-41, 9-42, 9-43,
9-119, 9-120, 9-122, 9-134,
9-135, 9-136, 9-137, 9-147,
9-149, 9-152, 9-153, 9-154,
9-160, 9-164, 9-190, 9-203,
9-204, 9-205
Centrifugal pump 6-52, 6-53,
7-12, 9-184
Checkbook method 9-25, 9-26
Chemigation 1-1, 1-2, 4-1,
4-7, 5-2, 6-34, 6-44, 6-50,
6-52, 7-21, 7-22, 7-25,
7-33, 8-18, 9-33, 9-119,
9-223, 11-17
Consumptive use 4-1, 4-3, 9-171

Continuous move 6-43, 6-52,
9-41, 9-42, 9-152, 9-146,
9-147, 9-148, 9-149, 9-150,
9-151, 9-152, 9-155, 9-156,
9-157, 9-158, 9-159, 9-160,
9-161, 9-162, 9-189, 9-190,
9-204, 9-231, 9-232, 10-10
Contour ditch irrigation 5-12,
6-22, 6-23, 6-24, 6-90,
7-4, 9-103, 9-104, 9-106,
9-107, 9-108, 9-109, 9-110,
9-111, 9-112, 9-113, 9-115,
9-116, 9-117, 9-118, 10-10
Contour levee irrigation 5-12,
6-5, 6-7, 6-8, 7-4
Conveyance 1-2, 7-2, 7-3,
7-5, 8-4, 8-7, 8-8, 8-9,
8-10, 8-11, 8-13, 8-17,
8-18, 8-19, 8-20, 8-25, 10-10
Conveyance efficiency 7-5, 9-31
Cost analysis 6-55, 7-17, 8-13,
8-19, 11-4, 11-11, 11-14,
11-27, 11-28
Crop coefficient 4-2
Crop evapotranspiration 1-4,
3-12, 3-13, 3-23, 4-1, 4-2,
4-3, 4-4, 4-5, 4-6, 4-7,
4-8, 4-13, 6-8, 6-31, 6-35,
8-3, 8-6, 8-11, 9-2, 9-19,
9-21, 9-26, 10-6, 10-11,
10-14, 11-17
Crop growth stage 3-7, 3-18,
3-24, 4-2, 9-21
Crop water use 3-14, 3-18,
4-1, 6-1, 6-21, 6-45, 7-1,
9-2, 9-22, 9-23, 9-25,
9-26, 9-28, 10-11
Cumulative intake 2-17, 9-57,
9-60, 9-65, 9-66, 9-77,
9-98, 9-99, 9-102, 9-113,
9-115, 9-229, 9-189, 9-199
Cutback irrigation 6-15, 6-18,
6-20, 9-38
Cycle time 6-12, 9-25
Cylinder infiltrometer 9-45,
9-46, 9-47, 9-57, 9-61,
9-68, 9-69, 9-103, 9-114,
9-188, 9-190, 9-191, 9-192,
9-193, 9-195, 9-196, 9-229,
9-230

D

Deep percolation 1-2, 1-5,
2-17, 3-13, 4-3, 4-4, 4-8,
4-9, 4-10, 5-4, 6-2, 6-5,
6-7, 6-8, 6-9, 6-11, 6-13,
6-14, 6-15, 6-18, 6-25,
6-27, 6-50, 6-65, 6-75,
7-18, 7-19, 7-21, 8-6,
8-10, 8-11, 8-19, 9-25,
9-26, 9-28, 9-31, 9-38,
9-62, 9-64, 9-79, 9-100,
9-102, 9-116, 9-130, 9-148,
9-149, 9-164, 10-10,
10-11, 10-12

Deficit irrigation 6-12, 9-3, 7-19

Delivery rate 8-5, 8-8, 9-3

Delivery schedule 1-4, 4-4,
5-3, 5-7, 5-8, 5-9, 5-10,
5-11, 6-77, 8-5, 8-7, 8-8,
8-25, 9-1, 9-3, 9-4, 9-23,
9-33, 10-6

Demand delivery 3-14, 6-75

Distribution uniformity 1-5,
3-13, 5-1, 5-4, 6-1, 6-5,
6-6, 6-9, 6-11, 6-13, 6-14,
6-15, 6-18, 6-20, 6-22,
6-29, 6-31, 6-32, 6-35,
6-42, 6-44, 6-45, 6-50,
6-56, 6-58, 6-65, 9-31,
9-32, 9-35, 9-36, 9-38,
9-64, 9-67, 9-69, 9-79,
9-100, 9-103, 9-116, 9-129,
9-133, 9-148, 9-186, 9-199

Distribution uniformity low
quarter 9-148

Drainage system 3-17, 3-18,
6-6, 6-82, 6-83, 7-2, 7-18,
7-19, 7-33, 9-82, 9-83,
9-210, 10-5, 10-7, 10-10

E

Ecosystem 8-13, 8-16

Effective precipitation 4-3,
4-4, 4-10, 8-2, 8-6, 8-10,
8-11, 8-17, 9-23, 9-26, 10-12

Electrical conductivity 2-9,
2-10, 2-31, 2-32, 2-39,
3-17, 6-68, 9-186, 9-221

Electrical resistance 9-16,
9-17, 9-41

Emitter device 6-59, 6-61,
6-62, 6-66, 6-74, 6-75,
6-76, 6-91, 9-43, 10-13

Emitter plugging 5-4, 9-206

Energy conservation 1-4

Environmental impact 8-2,
8-8, 8-12, 10-3

Erosion control 1-1, 4-7, 6-6,
6-25, 6-89, 7-16, 7-18

Evaporation 3-12, 3-13, 3-14,
3-17, 3-18, 4-2, 4-3, 4-4,
4-9, 5-3, 5-4, 6-2, 6-6,
6-7, 6-22, 6-27, 6-45,
6-48, 6-49, 6-50, 6-51,
6-52, 6-65, 7-2, 7-12,
7-18, 8-10, 8-17, 9-6,
9-21, 9-26, 9-31, 9-42,
9-120, 9-122, 9-129, 9-130,
9-135, 9-136, 9-148, 9-149,
9-153, 9-154, 9-163, 9-170,
9-171, 10-11

Evaporation pan 4-2, 9-21

Evapotranspiration 1-4, 2-1,
3-2, 3-12, 3-13, 3-23, 4-1,
4-2, 4-3, 4-4, 4-5, 4-6,
4-7, 4-8, 4-13, 6-1, 6-8,
6-31, 6-35, 6-75, 6-78,
8-3, 8-6, 8-11, 8-17, 9-2,
9-19, 9-21, 9-26, 9-28,
9-164, 9-170, 10-6, 10-11,
10-14, 11-16, 11-17

Exchangeable sodium percentage
(ESP) 2-31

F

FAO Blaney-Criddle 4-4, 4-5,
4-13

Fertigation 7-21

Fertilizer injector 6-77, 6-78,
7-24, 7-34

Filters 5-5, 6-65, 6-70, 6-72,
6-73, 6-74, 6-77, 6-83,
6-90, 9-34, 9-173

Filtration 6-8, 6-10, 6-11,
6-13, 6-14, 6-15, 6-18,
6-27, 6-48, 6-49, 6-50,
6-51, 6-52, 6-59, 6-62,
6-63, 6-65, 6-70, 6-72,
6-73, 6-74

Fixed set irrigation 5-2, 5-4,
5-5, 5-8, 9-122, 9-123,
9-204, 10-10

Flow measurement 6-21, 7-7,
7-8, 7-9, 7-10, 9-1, 9-4,
9-83, 9-120, 9-135, 9-206,
9-210, 9-213, 9-214, 9-215,
9-219, 9-220, 9-221, 9-222,
9-228, 10-12, 10-13

Flow meter 6-77, 7-10, 9-36,
9-37, 9-120, 9-134, 9-135,
9-147, 9-153, 9-160, 9-174,
9-181, 9-208, 9-209, 9-210,
9-213, 9-214, 9-217, 9-218,
9-219, 9-220, 9-221, 9-222,
9-228

Flow regulator 6-34, 6-47,
6-48, 6-77, 9-132

Freeze protection 9-21

Frost protection 1-1, 3-16,
4-1, 4-7, 5-3, 6-1, 6-42,
8-2, 8-18, 11-17

G

Graded border irrigation 5-5,
6-2, 6-5, 6-8, 7-16, 9-45,
9-65, 9-188, 10-10

Graded furrow irrigation 5-5,
6-8, 6-10, 6-11, 6-12,
6-13, 6-14, 6-18, 6-20,
7-16, 9-82, 9-85, 9-188, 10-10

Gravitational water 2-7, 2-16,
2-28, 9-47, 9-70, 9-84, 9-104

Gross system capacity 4-4

Ground water 1-1, 1-5, 2-29,
3-1, 3-2, 3-19, 5-1, 5-3,
6-13, 6-25, 6-45, 6-65,
7-19, 7-20, 8-2, 8-3, 8-6,
8-10, 8-12, 8-17, 8-19,
9-1, 9-23, 9-30, 10-1,
10-10, 10-11

Growing period 4-3, 9-2

H

Humid climate 3-1, 3-12,
3-14, 5-7, 5-9, 5-10, 5-12,
6-1, 6-9, 6-48, 6-83, 7-2,
9-96, 9-100

Humidity 3-12, 3-16, 4-1,
4-2, 4-3, 4-8, 5-3, 6-42,
8-10, 8-17, 9-20, 9-21,
9-28, 9-122, 9-130, 9-136,
9-149, 9-153

Hydraulic conductivity 6-81,
6-82, 6-83

Hygroscopic water 2-4

I

Impermeable layers 6-22, 7-19

Infiltration 2-2, 2-17, 2-20,
2-22, 2-28, 3-1, 3-14, 4-9,
5-4, 5-3, 5-7, 5-8, 5-9,
5-10, 5-11, 6-2, 6-3, 6-6,
6-8, 9-39, 9-45, 9-46,
9-47, 9-60, 9-62, 9-69,
9-77, 9-82, 9-84, 9-115,
9-132, 9-137, 9-173, 9-185,
9-186, 9-187, 9-188, 9-189,
9-190, 9-193, 9-196, 9-198,
9-199, 9-202, 9-203, 9-227,
9-230

Infiltrimeters 9-46, 9-47,
9-57, 9-60, 9-103, 9-104,
9-115, 9-188, 9-193, 9-196

Infrared 7-16, 9-10, 9-20,
9-21, 9-23, 9-25, 9-207

Injection 6-67, 6-68, 7-2,
7-21, 7-22, 7-23, 7-24,
7-25, 7-26, 7-27, 7-28,
7-30, 7-34

Intake families 2-18, 2-19,
2-22, 2-39, 9-185, 9-196,
9-197, 9-201, 9-230

Irrigation efficiency 3-13, 5-4,
6-6, 6-7, 6-22, 7-11, 7-15,
8-2, 8-6, 8-10, 8-11, 9-2,
9-31, 9-32, 9-35, 9-66,
9-100, 9-102, 9-227, 10-11

Irrigation frequency 3-12,
3-23, 4-7, 6-33

Irrigation scheduling 1-1, 1-5,
2-9, 3-2, 3-4, 3-12, 3-14,
4-2, 4-9, 6-5, 6-35, 6-50,
6-63, 6-75, 6-77, 6-78,
7-15, 8-4, 8-5, 8-18, 9-1,
9-2, 9-3, 9-4, 9-22, 9-23,
9-24, 9-25, 9-26, 9-27,
9-28, 9-30, 9-65, 9-68,
9-80, 9-81, 9-101, 9-116,
9-131, 9-150, 9-151, 9-161,
9-162, 9-164, 9-205, 9-206,
9-227, 9-229, 10-2, 10-3,
10-12, 10-13, 11-2, 11-14,
11-18

Irrigation season 2-17, 2-25,
4-8, 5-4, 6-18, 6-47, 6-48,
6-51, 6-52, 7-3, 8-11,
8-18, 9-2, 9-30, 9-67,
9-82, 9-163, 9-164, 9-205,
10-12

Irrigation system evaluation
7-12, 9-33, 9-35, 9-36,
9-45, 9-227

Irrigation water management
1-5, 2-11, 2-16, 3-2, 3-12,
3-13, 3-18, 5-4, 6-5, 6-9,
6-35, 7-9, 7-12, 7-15,
7-18, 8-7, 8-8, 9-1, 9-2,
9-3, 9-4, 9-19, 9-21, 9-22,
9-25, 9-30, 9-34, 9-151,
9-162, 9-205, 9-206, 9-217,
9-227, 10-2, 10-10, 10-11,
10-12, 10-13, 10-14,
10-24, 11-1

Irrigation water requirement
1-1, 1-4, 1-5, 2-31, 3-11,
3-12, 3-13, 3-16, 3-17, 3-19,
4-1, 4-2, 4-3, 4-4, 4-7, 4-8,
4-9, 4-13, 8-1, 8-2, 8-4,
8-6, 8-7, 8-10, 8-23, 8-25

L

Lag time 9-67, 9-102

Laser controlled leveling 6-6,
10-13

Leaching requirement 3-18, 4-7
level basin 2-3, 9-193

Level basin irrigation 2-3, 6-2,
6-5, 6-6, 6-7, 7-16, 9-68,
9-79, 9-193, 10-10

Level furrow irrigation 5-5,
6-8, 7-16, 9-37, 10-10

Line-source emitter 5-4, 6-62,
6-74, 9-43

Lined ditches 6-15, 7-5, 7-4,
7-5, 7-33, 9-212

Long-throated flume 9-210,
9-212, 9-213, 9-214, 9-216,
9-217, 9-220, 9-230

Low energy precision application
(LEPA) 5-2, 5-9, 6-27,
6-44, 6-47, 6-48, 6-49, 6-51,
6-52, 9-42, 9-134, 9-189

Lysimeter 4-1

M

Management allowable
Depletion 1-4, 3-7, 3-12,
3-24, 4-7, 6-35, 9-2, 9-6,
9-66, 9-102, 9-132, 9-164

Manifold 6-73, 6-76, 6-77,
9-164, 9-165, 9-170, 9-172,
9-173

Measuring device 6-35, 6-36,
6-66, 6-74, 6-77, 6-78,
6-82, 7-2, 7-5, 7-6, 7-7,
7-9, 8-4, 8-8, 8-17, 8-20,
9-3, 9-5, 9-7, 9-23, 9-26,
9-30, 9-33, 9-35, 9-37,
9-46, 9-82, 9-83, 9-103,
9-105, 9-198, 9-205, 9-206,
9-207, 9-210, 9-212, 9-213,
9-214, 9-218, 9-223, 9-228,
9-229, 10-10

Measuring flume 7-6, 7-9,
9-83, 9-188, 9-202, 9-212,
9-213

Measuring weir 6-22, 7-7

Micro irrigation 6-25, 6-59,
6-62, 6-63, 6-65, 6-67,
6-68, 6-69, 6-70, 6-72,
6-73, 6-74, 6-75, 6-76,
6-80, 6-89, 7-2, 7-3, 7-15,
7-16, 7-21, 8-7, 9-32,
9-33, 9-34, 9-35, 9-43,
9-163, 9-164, 9-165, 9-166,
9-167, 9-168, 9-169, 9-170,
9-171, 9-172, 9-173, 9-206,
9-230, 9-231, 9-232, 11-1,
11-2

Microspray 5-2, 5-10, 6-74, 6-76
Miners inches 7-9, 8-1, 9-219
Minispray 10-10
Moisture stress 1-4, 2-5, 2-9,
2-28, 3-2, 3-3, 3-4, 3-5,
3-7, 3-12, 3-14, 3-16,
3-24, 9-1, 9-2, 9-20, 9-21,
9-22, 9-23, 9-25

N

Net irrigation requirement
3-12, 3-23, 4-3, 4-4, 6-56,
8-2, 9-65, 9-80, 9-101,
9-117, 9-149, 9-150,
9-161, 10-6
Net system capacity 4-4
Net water application 6-9
Non-saline 5-10
Nonpoint source 7-20

O

Opportunity time 2-17, 2-29,
6-6, 6-11, 6-13, 9-37, 9-45,
9-47, 9-60, 9-65, 9-66,
9-67, 9-68, 9-69, 9-77,
9-79, 9-81, 9-96, 9-99,
9-100, 9-102, 9-103, 9-104,
9-115, 9-137, 9-186, 9-188,
9-199, 9-202

P

Parshall flume 7-10, 9-36,
9-37, 9-206, 9-211, 9-212
Peak daily evapotranspiration 6-1
Penman method 4-2
Penman-Monteith method 4-2
Perched water table 2-28

Percolation 1-2, 1-5, 2-17,
3-13, 4-3, 4-4, 4-8, 4-9,
4-10, 5-4, 6-2, 6-5, 6-7,
6-8, 6-9, 6-11, 6-13, 6-14,
6-15, 6-18, 6-25, 6-27,
6-50, 6-65, 6-75, 7-18,
7-19, 7-21, 8-6, 8-10,
8-11, 8-19, 9-25, 9-26,
9-28, 9-31, 9-38, 9-62,
9-64, 9-79, 9-100, 9-102,
9-116, 9-130, 9-148, 9-149,
9-164, 10-10, 10-11, 10-12

Periodic move 2-17, 2-22,
2-38, 6-27, 6-28, 6-30,
6-31, 6-42, 6-44, 6-89,
7-16, 9-40, 9-119, 9-122,
9-123, 9-124, 9-125, 9-126,
9-127, 9-128, 9-129, 9-130,
9-131, 9-132, 9-133, 9-165,
9-190, 9-204, 9-231

Permeability 2-2, 2-3, 2-4,
2-7, 2-16, 2-17, 2-28,
2-29, 2-32, 2-39, 3-1, 5-11

Piston pump 9-213

Pollution 1-1, 1-2, 1-4, 1-9,
6-13, 6-20, 6-45, 6-81,
7-21, 7-25, 9-23, 9-30,
9-31, 10-7

Precipitation 2-1, 3-1, 3-17,
4-3, 4-4, 4-8, 4-9, 4-10,
5-7, 6-1, 6-6, 6-14, 6-48,
6-49, 6-50, 6-51, 6-65,
6-68, 6-74, 6-80, 7-11,
7-12, 7-18, 7-19, 7-20,
7-33, 8-2, 8-3, 8-6, 8-10,
8-11, 8-17, 9-23, 9-26,
9-28, 9-40, 9-186, 9-203,
10-7, 10-10, 10-11, 10-12

Preferential flow paths 2-17

Pressure plate 9-5

Pressure regulator 6-33, 6-36,
6-50, 6-52, 6-65, 6-66, 6-77

Project water requirement 6-1,
8-2, 8-7

Puddling 6-30, 6-55, 6-56,
9-186, 9-190

Pump characteristic curves 6-34,
7-17

Pump impeller 7-9, 7-17, 9-184

Pump performance curves 6-34,
7-17, 9-181

Pump sump 6-20, 9-189, 9-202

Pumpback system 6-20, 7-11,
7-12

Pumping plant efficiency 9-66,
9-80, 9-101, 9-117, 9-132,
9-183

Pumping plants 1-1, 5-3, 6-1,
7-2, 7-17, 7-33, 9-174,
9-181, 9-182, 9-183, 9-185,
9-231, 10-7, 10-10

R

Radiation method 4-2

Recession curve 9-36, 9-37,
9-59, 9-60, 9-65, 9-66,
9-67, 9-69, 9-96, 9-97,
9-101, 9-102, 9-229

Recession rate 6-2

Reference crop evapotranspira-
tion 4-1, 4-2

Relative humidity 4-1, 4-2,
4-3, 4-8, 9-20, 9-28

Replogle flume 7-9, 7-10,
9-36, 9-37, 9-206, 9-211,
9-212, 9-214, 9-223

Retardance 6-10

Rill irrigation 10-10

Riparian areas 6-80

Root zone 1-2, 1-5, 2-1, 2-3,
3-1, 3-2, 3-7, 3-8, 3-10,
3-11, 3-12, 3-13, 3-19,
4-3, 4-7, 4-8, 4-9, 5-4,
6-2, 6-6, 6-9, 6-11, 6-15,
6-48, 6-50, 6-63, 6-65,
6-66, 6-68, 6-73, 6-75,
6-81, 7-18, 7-19, 8-10,
8-11, 9-2, 9-5, 9-6, 9-7,
9-17, 9-20, 9-22, 9-23,
9-26, 9-30, 9-31, 9-32,
9-37, 9-38, 9-43, 9-46,
9-65, 9-69, 9-79, 9-83,
9-96, 9-100, 9-102, 9-116,
9-119, 9-130, 9-134, 9-148,
9-153, 9-160, 9-163, 9-170,
9-171, 9-199, 10-5, 10-10,
10-11

Rooting depth 1-4, 2-4, 2-28,
3-8, 3-23, 4-9, 6-6, 6-33,
6-45, 6-75, 9-1, 9-2, 9-7,
9-14, 9-34, 10-5

- Runoff 1-2, 1-5, 2-3, 2-17, 2-20, 2-21, 2-25, 2-26, 2-27, 2-29, 2-38, 3-1, 3-13, 3-14, 4-3, 4-4, 4-8, 4-9, 5-1, 5-3, 5-7, 5-12, 6-2, 6-3, 6-5, 6-6, 6-7, 6-8, 6-9, 6-11, 6-12, 6-13, 6-14, 6-15, 6-18, 6-20, 6-21, 6-22, 6-27, 6-44, 6-45, 6-46, 6-47, 6-48, 6-49, 6-50, 6-51, 6-52, 6-65, 6-69, 7-11, 7-12, 7-13, 7-18, 7-19, 7-20, 7-21, 7-33, 7-34, 8-3, 8-6, 8-7, 8-10, 8-11, 8-18, 9-25, 9-31, 9-33, 9-34, 9-36, 9-38, 9-39, 9-41, 9-42, 9-46, 9-47, 9-59, 9-60, 9-62, 9-64, 9-65, 9-66, 9-67, 9-82, 9-84, 9-100, 9-102, 9-103, 9-104, 9-116, 9-130, 9-133, 9-134, 9-137, 9-148, 9-149, 9-151, 9-152, 9-160, 9-162, 9-186, 9-189, 9-202, 9-204, 9-205, 10-6, 10-10, 10-11, 10-12
- S**
- Saline soil 2-31, 3-1, 7-19
- Salinity 1-1, 1-4, 2-1, 2-3, 2-4, 2-5, 2-7, 2-9, 2-10, 2-23, 2-24, 2-31, 2-37, 2-39, 3-1, 3-17, 3-18, 3-19, 3-23, 4-7, 5-7, 5-8, 5-9, 5-10, 5-11, 6-33, 6-65, 6-66, 6-68, 6-81, 8-1, 8-6, 8-10, 8-17, 9-16, 9-18, 9-20, 9-28, 9-31, 9-39, 9-41, 9-42, 9-43, 9-46, 9-69, 9-82, 9-83, 9-119, 9-134, 9-152, 9-164, 10-3, 10-5
- Salinity management 3-18, 4-7, 9-31, 9-82
- Salt tolerance 3-17
- Screening device 7-2
- Sediment 1-2, 2-17, 2-23, 5-3, 5-7, 6-1, 6-9, 6-11, 6-20, 6-21, 6-25, 6-26, 6-45, 6-63, 6-65, 6-66, 6-70, 6-73, 6-74, 7-4, 7-6, 7-7, 7-12, 7-13, 7-19, 8-7, 8-12, 8-17, 8-18, 8-19, 9-31, 9-33, 9-34, 9-38, 9-41, 9-46, 9-82, 9-83, 9-135, 9-153, 9-165, 9-172, 9-186, 9-213, 9-214, 9-215, 9-217, 9-221
- Seepage losses 6-8, 7-5, 7-33, 8-8, 9-31, 9-213
- Semiarid climate 3-1, 5-7, 5-9, 5-10, 5-12, 6-1, 6-9, 6-15, 6-42, 6-48, 6-79
- Sideroll wheel line 5-2, 5-4, 7-16, 9-40, 9-119, 10-6
- Siphon tube 6-12, 6-20, 6-22, 6-25, 7-4, 7-7, 7-8, 9-33, 9-37, 9-38, 9-82, 9-207, 9-223
- Sodic soil 2-31, 2-37, 3-1, 7-19, 9-16
- Sodicity 1-4, 2-1, 2-3, 2-4, 2-5, 2-7, 2-17, 2-23, 2-24, 2-31, 3-1, 3-17, 3-18, 3-19, 3-23, 4-7, 5-7, 5-8, 5-9, 5-10, 5-11, 7-18, 8-17, 10-5
- Sodium adsorption ratio (SAR) 2-31, 2-32, 2-39, 3-17
- Soil erodibility 2-4, 2-29, 2-30, 2-37, 2-38, 8-1
- Soil horizon 2-12
- Soil properties 1-4, 2-1, 2-2, 2-3, 2-4, 2-29, 2-34, 2-37, 2-38, 2-39, 6-83
- Soil survey 1-4, 2-1, 2-2, 2-34, 8-1, 9-46, 9-68, 10-5
- Soil water 2-4, 2-9, 2-28, 3-1, 3-2, 3-5, 3-7, 3-8, 3-10, 3-13, 3-24, 4-4, 4-8, 6-5, 6-42, 6-65, 6-66, 6-83, 7-15, 9-2, 9-7, 9-8, 9-10, 9-14, 9-17, 9-19, 9-21, 9-23, 9-24, 9-26, 9-28, 9-46, 9-47, 9-57, 9-62, 9-65, 9-66, 9-69, 9-70, 9-79, 9-81, 9-83, 9-84, 9-96, 9-100, 9-102, 9-103, 9-104, 9-113, 9-116, 9-118, 9-188, 9-206, 9-229, 10-11, 10-12, 10-27
- Soil-water deficit 3-7, 3-12, 9-6, 9-26, 9-31, 9-36, 9-37, 9-38, 9-40, 9-41, 9-42, 9-43, 9-119, 9-132, 9-134, 9-148, 9-151, 9-153, 9-162
- Soil-water potential 3-8, 3-17
- Solar radiation 4-1, 4-2, 4-3, 4-8, 5-3, 8-17
- Solid set irrigation 5-2, 5-5, 5-8, 6-27, 6-42, 10-10
- Specific gravity 2-16
- Spray heads 2-20, 3-13, 3-15, 5-2, 5-5, 5-12, 6-30, 6-44, 6-46, 6-48, 6-52, 6-59, 6-63, 6-70, 6-74, 9-43, 9-122, 9-134, 9-163, 9-165, 9-189, 9-190, 9-203, 10-13
- Sprinkler irrigation 2-17, 4-9, 5-6, 5-8, 5-9, 5-12, 5-17, 6-1, 6-27, 6-28, 6-33, 6-34, 6-35, 6-42, 6-43, 6-45, 6-52, 6-89, 7-8, 7-15, 7-21, 9-33, 9-119, 9-122, 9-123, 9-124, 9-125, 9-126, 9-127, 9-128, 9-129, 9-130, 9-131, 9-132, 9-133, 9-137, 9-138, 9-139, 9-140, 9-141, 9-142, 9-143, 9-144, 9-145, 9-151, 9-152, 9-155, 9-156, 9-157, 9-158, 9-159, 9-164, 9-231, 9-232, 10-6, 10-14, 10-24, 10-25, 10-26
- Static head 9-181
- Subhumid climate 4-4, 4-6
- Subirrigation 5-2, 5-11, 5-17, 6-83, 8-18, 9-45, 10-10

-
- Supplemental irrigation 6-56, 7-18
- Surface irrigation 1-2, 5-1, 5-7, 5-12, 5-17, 6-2, 6-3, 6-5, 6-6, 6-7, 6-8, 6-10, 6-12, 6-18, 6-22, 6-27, 6-44, 6-83, 6-89, 6-91, 7-4, 7-15, 7-16, 7-19, 8-4, 8-6, 8-7, 9-33, 9-47, 9-48, 9-49, 9-50, 9-51, 9-52, 9-53, 9-54, 9-55, 9-71, 9-72, 9-73, 9-74, 9-75, 9-76, 9-84, 9-85, 9-86, 9-87, 9-88, 9-89, 9-90, 9-91, 9-92, 9-93, 9-94, 9-35, 9-100, 9-106, 9-107, 9-108, 9-109, 9-110, 9-111, 9-112, 9-185, 9-186, 9-227, 9-231, 10-6
- Surface sealing 2-23, 9-186
- Surface storage 2-20, 2-21, 2-22, 2-25, 2-26, 2-27, 2-28, 2-29, 2-38, 2-39, 3-14, 6-2, 6-9, 6-27, 6-44, 6-45, 6-46, 6-47, 6-48, 6-50, 6-51, 6-52, 9-42, 9-137, 9-151, 9-162, 9-189, 9-203, 9-204
- Surge irrigation 6-10, 6-14, 6-16, 6-18, 6-91, 9-38
- System capacity 2-1, 4-4, 6-1, 6-28, 6-33, 6-46, 6-49, 6-50, 6-51, 6-75, 6-78, 6-89, 8-3, 8-19, 8-25, 9-147, 9-160, 10-14
- T**
- Tailwater recovery 6-20, 6-21, 6-91, 7-2, 7-11, 7-12, 7-13, 7-14, 7-19, 7-33, 10-6, 10-10
- Tensiometer 9-14, 9-15, 9-16, 9-228, 9-229
- Total available water 3-7
- Toxicity 3-18, 3-19, 5-3
- Translocation 2-20, 2-25, 3-13, 6-27, 6-44, 6-45, 6-46, 6-47, 6-48, 6-49, 6-50, 6-51, 6-52, 6-56, 7-19, 9-31, 9-34, 9-39, 9-41, 9-42, 9-133, 9-134, 9-137, 9-151, 9-152, 9-160, 9-161, 9-186, 9-189
- Transpiration 2-1, 3-12, 3-17, 3-18, 4-1, 6-7, 6-65, 9-19, 9-20
- Traveling gun sprinkler 5-2, 5-5, 6-27, 6-54, 6-55, 6-56, 6-57, 9-42, 10-6
- Trickle irrigation 6-34, 6-59, 6-85, 9-163
- Turbine pump 6-34
- U**
- Unsaturated 2-20, 6-5
- Upflux 2-1, 4-8, 6-81, 7-19, 9-22, 9-227
- Upward flow 4-8, 6-83, 9-22
- V**
- Vacuum pump 7-6, 9-14
- Volumetric water content 3-17
- W**
- Wastewater 6-20, 6-26, 7-19, 8-18
- Water balance 8-11, 9-1, 9-4, 9-22, 9-25, 9-26, 9-27, 9-28, 9-227, 9-229, 10-10, 10-11
- Water brake 6-20
- Water budget 1-4, 1-5, 8-10, 8-11, 8-19, 8-25, 8-26, 9-1, 9-4, 10-10
- Water duty 5-4
- Water holding capacity 2-4, 2-37, 9-4, 9-5
- Water measurement 1-4, 2-16, 3-14, 6-1, 7-2, 7-9, 7-33, 8-8, 8-19, 9-4, 9-25, 9-202, 9-205, 9-206, 9-207, 9-228, 9-229
- Water quality 2-1, 2-17, 3-1, 6-2, 6-9, 6-67, 6-70, 6-81, 7-18, 7-20, 7-21, 8-1, 8-10, 8-11, 8-12, 8-19, 8-20, 9-1, 9-2, 9-16, 9-22, 9-45, 9-68, 9-82, 9-135, 9-153, 10-1, 10-5, 10-6
- Water right 5-1, 5-3, 7-9, 8-1, 8-8, 8-12, 8-17
- Water table 2-1, 2-3, 2-4, 2-28, 2-29, 2-34, 2-37, 2-39, 3-10, 5-2, 5-3, 5-11, 6-33, 6-80, 6-81, 6-82, 6-83, 6-84, 6-85, 6-92, 7-18, 7-19, 7-20, 8-1, 8-6, 8-17, 9-1, 9-17, 9-22, 9-26, 9-34, 9-46, 9-69, 9-83, 9-104, 9-119, 9-134, 9-153, 10-5, 10-6, 10-10
- Water table management 6-81, 6-82, 6-83, 6-85, 6-92
- Weather station 9-26, 9-28
- Weir 6-22, 6-81, 6-82, 7-5, 7-7, 7-9, 7-16, 8-10, 9-36, 9-37, 9-68, 9-82, 9-103, 9-188, 9-198, 9-206, 9-207, 9-209, 9-210, 9-211, 9-212, 9-213, 9-214, 9-215, 9-216, 9-217, 9-223, 9-228, 9-230
- Wetted bulb 6-65, 9-38, 9-199
- Wetted front 9-47, 9-70,
- Wetted perimeter 9-99, 9-100, 9-101
- Wheel line 6-29, 6-35, 6-36, 6-52, 6-92, 9-40, 9-41, 9-119, 10-6
- Wilting point 2-4, 2-5, 2-9, 9-4, 9-5, 9-7, 9-10, 9-18, 9-20
- Wind drift 3-13, 4-4, 5-4, 6-27, 6-50, 6-51, 7-21, 9-40, 9-129, 9-135, 9-153, 9-171
- Wind movement 4-2, 4-8
-