

SUMMARY OF PH, ALKALINITY, AND SALINITY VALUES
at Clam Seed Production Facilities in Florida during 2020-2022

pH: Negative logarithm of hydrogen ion concentration used to define acidity (values <7) and alkalinity (values >7)

Recommendations: 7.8 to 8.4 ¹

pH						
Facility Code	Year 1 (2020-21)			Year 2 (2021-22)		
	average	min	max	average	min	max
e232 (H,TW)	7.9	7.7	8.1	-	-	-
e232 (H,SW)	8.0	7.8	8.1	-	-	-
f626 (H,TW)	7.8	7.5	8.1	-	-	-
f626 (H,SW)	7.8	7.6	8.1	-	-	-
g109 (H,TW)	7.9	7.5	8.4	7.7	7.0	8.4
g109 (H,WW)	7.0	6.7	7.2	7.0	6.4	8.1
K885 (H,TW)	-	-	-	8.1	8.1	8.5
K885 (H,WW)	-	-	-	8.3	7.7	8.4
n185 (H,WW)	7.8	6.8	8.7	7.9	7.1	9.0
u537 (H,WW)	7.5	7.4	8.0	7.4	7.1	8.1
y378 (H,SW)	7.8	7.3	8.1	7.9	7.4	8.5
z936 (H,WW)	8.0	7.4	8.7	7.7	7.5	8.0
c578 (N, SW)	7.8	7.5	8.4	7.9	7.3	8.2
j737 (N, SW)	7.8	7.4	8.0	7.8	7.4	8.2
o613 (N, SW)	7.7	6.6	8.9	7.9	7.2	8.9
t383 (N, SW)	7.8	7.2	8.2	8.0	7.3	8.9
w329 (N, SW)	7.8	7.6	8.1	7.7	6.9	8.5

Alkalinity: Water property that resists or buffers against changes in pH upon addition of acid or base

Recommendations: 110-140 ¹

Alkalinity (ppm CaCO₃)						
Facility Code	Year 1 (2020-21)			Year 2 (2021-22)		
	average	min	max	average	min	max
e232 (H,TW)	122	84	138	-	-	-
e232 (H,SW)	132	121	146	-	-	-
f626 (H,TW)	130	111	152	-	-	-
f626 (H,SW)	131	120	145	-	-	-
g109 (H,TW)	160	64	212	121	71	209
g109 (H,WW)	213	207	229	210	136	220
K885 (H,TW)	-	-	-	253	151	268
K885 (H,WW)	-	-	-	258	232	266
n185 (H,WW)	138	123	150	113	68	146
u537 (H,WW)	167	146	179	171	155	179
y378 (H,SW)	162	130	195	155	130	182
z936 (H,WW)	142	129	155	147	139	166
c578 (N, SW)	139	120	157	134	98	157
j737 (N, SW)	139	120	177	136	100	164
o613 (N, SW)	140	127	152	122	79	146
t383 (N, SW)	133	118	154	134	118	161
w329 (N, SW)	137	121	152	133	93	216

Legend: Facility: H-Hatchery N-Nursery / Source Water: SW-Surface Water TW-Tank Water WW-Well Water

SUMMARY OF PH, ALKALINITY, AND SALINITY VALUES at Clam Seed Production Facilities in Florida during 2020-2022

Salinity: Degree of salt dissolved in water

Recommendations: 20-35 ppt (psu) ²

Salinity (ppt)						
Facility Code	Year 1 (2020-21)			Year 2 (2021-22)		
	average	min	max	average	min	max
e232 (H,TW)	24	20	26	-	-	-
e232 (H,SW)	24	22	26	-	-	-
f626 (H,TW)	23	16	28	-	-	-
f626 (H,SW)	23	18	28	-	-	-
g109 (H,TW)	28	19	31	29	24	32
g109 (H,WW)	26	18	29	28	23	32
K885 (H,TW)	-	-	-	25	23	28
K885 (H,WW)	-	-	-	24	23	25
n185 (H,WW)	29	23	34	30	27	34
u537 (H,WW)	30	27	33	31	27	34
y378 (H,SW)	27	20	34	29	25	33
z936 (H,WW)	30	30	31	31	29	32
c578 (N, SW)	24	19	28	24	11	30
j737 (N, SW)	24	16	30	25	17	31
o613 (N, SW)	29	23	34	30	25	34
t383 (N, SW)	28	10	36	31	25	37
w329 (N, SW)	23	18	28	24	10	29

Legend: Facility: H-Hatchery N-Nursery / Source Water: SW-Surface Water TW-Tank Water WW-Well Water

References:

¹ Elston, R. (2008) Water Quality in Bivalve Hatcheries. Presented at Florida Clam Industry Workshop, Cedar Key, FL. <https://shellfish.ifas.ufl.edu/clam-workshops/2008-clam-workshop/>

² Hadley, N.H. and Whetstone, J.M. (2007) Hard Clam Hatchery and Nursery Production. USDA Southern Regional Aquaculture Center, SRAC Publication No. 4301: 8 pp. [file:///C:/Users/Inst/Downloads/SRAC_4301%20\(2\).pdf](file:///C:/Users/Inst/Downloads/SRAC_4301%20(2).pdf)