

Plant_ID	Total Days	Average Temperature (°C)	Average Humidity (%)	Average TDS Value (ppm)
4	48	30.65	63.35	598.21
55	48	21.82	63.50	581.27
3	47	30.61	68.68	620.40
7	47	30.59	64.13	608.13
11	47	30.67	64.40	580.60
48	47	30.62	64.11	587.51
9	46	30.64	66.87	607.74
16	46	30.63	64.91	599.28
23	46	30.67	64.80	616.76
57	46	21.07	63.22	628.20
70	46	21.77	65.04	587.76
1	45	30.63	63.96	615.31
2	45	30.63	64.60	596.89
5	45	30.63	65.07	577.13
6	45	30.63	64.42	614.13
8	45	30.63	66.27	598.22
10	45	30.63	65.82	612.98
12	45	30.63	65.49	580.73
13	45	30.63	64.38	577.51
14	45	30.63	64.36	584.58
15	45	30.63	63.62	590.47
17	45	30.63	64.69	621.02
18	45	30.63	65.71	572.44
19	45	30.63	66.78	567.00
20	45	30.63	64.89	603.62
21	45	30.63	65.69	591.07
22	45	30.63	64.11	612.29
24	45	30.44	66.29	599.24
25	45	30.63	67.40	581.11
26	45	30.63	63.00	574.49
27	45	30.63	64.49	609.84
28	45	30.63	64.84	579.02
29	45	30.63	65.78	584.09
30	45	30.63	65.84	595.09
31	45	30.63	65.51	568.42
32	45	30.63	66.20	618.04
33	45	30.63	68.02	568.76
34	45	30.63	62.73	618.36
35	45	30.63	65.96	607.02
36	45	30.63	65.67	616.22
37	45	30.63	66.33	599.04
38	45	30.63	66.60	596.71
39	45	30.63	63.76	595.04
40	45	30.63	65.71	582.40
41	45	30.63	63.69	577.64
42	45	30.63	63.07	595.02
43	45	30.63	63.27	616.11
44	45	30.63	63.47	622.60
45	45	30.63	63.82	593.24
46	45	30.63	65.80	572.36
47	45	30.63	66.27	610.76
49	45	30.63	63.11	613.84
50	45	30.63	64.91	612.36
51	45	30.63	63.27	618.11
52	45	21.16	65.18	627.20
53	45	21.77	64.24	579.49
54	45	21.14	62.62	598.44
56	45	21.79	62.91	602.47
58	45	21.43	63.18	580.91
59	45	21.90	66.58	595.76
60	45	21.33	67.47	607.33
61	45	21.04	63.87	609.40
62	45	21.41	64.11	587.82
63	45	21.09	66.69	609.20
64	45	21.57	67.02	597.04
65	45	22.05	63.07	603.93
66	45	21.33	64.91	584.98
67	45	21.31	63.69	618.96
68	45	21.60	65.13	602.31
69	45	21.38	62.91	601.53

Dependence of the growth period on fertilizers (TDS)

Dependence of the growth period on humidity

Dependence of the growth period on temperature

From the general analysis we see that there is no clear direct dependence on watering, fertilizers or on the temperature of the growth period of lettuce, this means that, for example, the theory that the more fertilizers, the faster the lettuce will grow, is not traceable. Some scientific articles on growing lettuce (<https://agrolife.ua/blog/tehnologiya-vyrashchivaniya-salata/?srsltid=AfmBOoccs5q6NsZ2CWbERBNLB6QbyRPwr7ICqPFbMjL0cxg9qp1HakBd>) say that the most optimal temperature for lettuce growth is 15-20°C. At temperatures above 25°C, the plant may begin to bolt, that is, release flower stalks, which worsens the taste of the leaves.

Selective analysis of two IDs with the best performance

ID53. Soil fertilization by days

ID61. Soil fertilization by days

ID53. Temperature by days

ID61. Temperature by days

Here we see that the temperature was below 25 degrees everywhere and never even rose above the average temperature for all observations - 28.14 degrees. as far as the use of soil fertilizers is concerned, there is a tendency towards minimal use, the average values for ID 53 are 579.49, and for ID61 - 609.4. Also, there is quite moderate watering, due to the fact that the temperature is not high.

Top 3 recommendations for the next season:

- consider maintaining the temperature in the range of 18 to 21 degrees.

- measure the soil pH, not the air, to conduct an additional acid-base analysis of the soil, in this analysis it is not possible to establish a connection between how fertilizer affects the pH of the soil and then growth.

- reduce moisture as a result to the range of 62 - 63%