

# Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
1	serviceberry spp	0.9	54.75	1.9	0.16	0.9	0.08	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.14
2	serviceberry spp	0.9	54.75	1.9	0.16	0.9	0.08	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.14
3	serviceberry spp	0.8	54.75	1.4	0.12	0.8	0.07	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.12
4	serviceberry spp	1.0	54.75	2.4	0.21	1.0	0.09	0.4	0.02	N/A	N/A	0.2	0.04	N/A	0.16
5	Ginkgo	3.1	98.70	7.4	0.63	0.7	0.06	2.2	0.15	N/A	N/A	1.0	0.27	N/A	0.48
6	European beech	9.5	1,021.16	424.2	36.17	11.5	0.98	51.3	3.43	N/A	N/A	21.8	6.23	N/A	10.65
7	Bur oak	2.4	78.30	9.5	0.81	1.1	0.10	2.0	0.13	N/A	N/A	0.8	0.24	N/A	0.46
8	American elm	2.6	39.15	11.3	0.97	2.3	0.19	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.56
9	Norway maple	2.8	78.30	24.0	2.05	4.0	0.34	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.70
10	Ginkgo	23.8	7,000.00	1,267.9	108.12	14.9	1.27	76.1	5.08	N/A	N/A	32.4	9.25	N/A	15.60
11	Siberian elm	2.9	19.58	17.3	1.47	3.1	0.26	2.2	0.15	N/A	N/A	0.9	0.27	N/A	0.68
12	American basswood	10.2	917.88	237.9	20.29	8.8	0.75	27.9	1.87	N/A	N/A	11.9	3.40	N/A	6.01
13	Pin oak	33.6	11,051.53	5,074.4	432.72	62.4	5.32	229.1	15.31	N/A	N/A	97.6	27.85	N/A	48.49
14	Green ash	24.9	6,238.73	1,846.5	157.46	29.6	2.53	97.8	6.54	N/A	N/A	41.7	11.89	N/A	20.96
15	Northern red oak	30.8	9,342.50	5,726.7	488.35	71.7	6.11	85.0	5.68	N/A	N/A	36.2	10.34	N/A	22.14
16	serviceberry spp	1.0	54.75	2.4	0.21	1.0	0.09	0.4	0.02	N/A	N/A	0.2	0.04	N/A	0.16
17	Japanese maple	7.4	546.63	166.3	14.18	5.6	0.48	7.7	0.52	N/A	N/A	3.3	0.94	N/A	1.94
18	Bur oak	2.7	78.30	12.7	1.08	1.3	0.11	2.3	0.15	N/A	N/A	1.0	0.28	N/A	0.55
19	Roughleaf dogwood	0.6	54.75	0.7	0.06	0.6	0.05	0.4	0.03	N/A	N/A	0.2	0.05	N/A	0.12
20	Swamp white oak	3.6	106.48	71.9	6.13	7.8	0.66	3.2	0.21	N/A	N/A	1.4	0.39	N/A	1.27
21	Bur oak	2.3	78.30	8.5	0.73	1.1	0.09	1.8	0.12	N/A	N/A	0.8	0.22	N/A	0.44
22	Swamp white oak	3.4	94.98	64.7	5.52	7.4	0.63	2.9	0.19	N/A	N/A	1.2	0.35	N/A	1.17
23	Tulip tree	2.8	78.30	13.9	1.18	2.6	0.22	2.8	0.19	N/A	N/A	1.2	0.34	N/A	0.75
24	Black maple	21.4	3,584.08	2,522.5	215.11	41.7	3.56	85.7	5.73	N/A	N/A	36.5	10.42	N/A	19.71
25	Prairie crabapple	2.6	54.75	15.3	1.30	2.4	0.20	1.4	0.10	N/A	N/A	0.6	0.17	N/A	0.47
26	Black oak	14.2	2,074.76	1,187.4	101.26	31.7	2.70	50.4	3.37	N/A	N/A	21.5	6.12	N/A	12.19
27	Pin oak	23.9	5,748.56	2,569.9	219.15	44.4	3.79	127.7	8.54	N/A	N/A	54.4	15.53	N/A	27.85
28	Northern hackberry	31.2	9,590.76	595.3	50.76	6.7	0.58	139.5	9.33	N/A	N/A	59.4	16.96	N/A	26.86
29	Tulip tree	0.8	78.30	0.5	0.05	0.5	0.04	0.6	0.04	N/A	N/A	0.2	0.07	N/A	0.15
30	cottonwood spp	25.4	2,000.27	7,822.2	667.04	121.5	10.36	108.7	7.27	N/A	N/A	46.3	13.22	N/A	30.85
31	cottonwood spp	20.9	1,477.08	4,820.3	411.06	91.0	7.76	85.9	5.74	N/A	N/A	36.6	10.44	N/A	23.95
32	Sugar maple	0.8	97.88	0.9	0.08	0.4	0.03	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.09

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						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
33	White ash	29.4	8,693.09	5,066.3	432.04	65.0	5.54	68.6	4.59	N/A	N/A	29.2	8.34	N/A	18.47
34	Sugar maple	8.6	816.63	315.1	26.87	9.6	0.82	24.7	1.65	N/A	N/A	10.5	3.01	N/A	5.48
35	Bur oak	9.4	898.59	284.8	24.29	8.4	0.72	27.2	1.82	N/A	N/A	11.6	3.31	N/A	5.84
36	Swamp white oak	2.4	78.30	35.1	2.99	5.3	0.45	1.7	0.11	N/A	N/A	0.7	0.21	N/A	0.77
37	Norway maple	9.8	975.73	405.2	34.55	19.1	1.63	16.9	1.13	N/A	N/A	7.2	2.05	N/A	4.81
38	Northern red oak	2.2	78.30	9.4	0.80	1.7	0.15	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.50
39	European silver birch	7.9	621.10	420.7	35.87	21.1	1.80	21.0	1.40	N/A	N/A	8.9	2.55	N/A	5.75
40	Tulip tree	13.0	1,708.58	567.1	48.36	22.0	1.88	55.4	3.70	N/A	N/A	23.6	6.73	N/A	12.31
41	Bur oak	2.6	78.30	11.6	0.99	1.3	0.11	2.2	0.15	N/A	N/A	0.9	0.27	N/A	0.52
42	White oak	1.8	97.88	4.7	0.40	0.9	0.07	1.4	0.09	N/A	N/A	0.6	0.17	N/A	0.33
43	Black oak	25.6	6,746.06	4,825.5	411.50	71.1	6.06	75.4	5.04	N/A	N/A	32.1	9.17	N/A	20.27
44	Black oak	48.9	19,671.21	16,534.7	1,410.00	17.9	1.53	154.7	10.34	N/A	N/A	65.9	18.80	N/A	30.67
45	White oak	58.9	29,184.17	16,534.7	1,410.00	17.9	1.53	329.4	22.02	N/A	N/A	140.3	40.05	N/A	63.60
46	Swamp white oak	8.3	703.02	357.7	30.50	17.7	1.51	17.9	1.20	N/A	N/A	7.6	2.18	N/A	4.89
47	American basswood	18.7	2,768.44	993.5	84.72	19.9	1.70	80.7	5.40	N/A	N/A	34.4	9.81	N/A	16.91
48	Green ash	17.2	2,982.61	848.5	72.35	19.3	1.65	69.2	4.63	N/A	N/A	29.5	8.42	N/A	14.69
49	White oak	39.5	17,915.17	11,390.4	971.32	65.8	5.61	133.9	8.95	N/A	N/A	57.0	16.28	N/A	30.84
50	Northern red oak	16.2	2,647.13	1,202.2	102.52	28.7	2.45	66.3	4.43	N/A	N/A	28.3	8.06	N/A	14.95
51	Prairie crabapple	2.9	54.75	19.9	1.70	2.8	0.24	1.6	0.11	N/A	N/A	0.7	0.20	N/A	0.54
52	Northern red oak	14.0	1,979.78	843.3	71.91	23.3	1.99	57.4	3.83	N/A	N/A	24.4	6.97	N/A	12.80
53	Swamp white oak	2.8	78.30	45.7	3.90	6.1	0.52	2.1	0.14	N/A	N/A	0.9	0.26	N/A	0.92
54	Red maple	9.9	995.52	395.9	33.76	20.1	1.71	22.4	1.50	N/A	N/A	9.5	2.72	N/A	5.93
55	Siberian elm	3.0	19.58	18.8	1.60	3.2	0.28	2.3	0.16	N/A	N/A	1.0	0.29	N/A	0.72
56	Swamp white oak	12.5	1,580.51	804.1	68.57	26.5	2.26	43.8	2.93	N/A	N/A	18.7	5.33	N/A	10.52
57	Green ash	20.1	4,069.12	1,177.2	100.39	23.1	1.97	77.6	5.19	N/A	N/A	33.1	9.44	N/A	16.60
58	Prairie crabapple	2.9	54.75	19.9	1.70	2.8	0.24	1.6	0.11	N/A	N/A	0.7	0.20	N/A	0.54
59	Prairie crabapple	2.9	54.75	19.9	1.70	2.8	0.24	1.6	0.11	N/A	N/A	0.7	0.20	N/A	0.54
60	American elm	3.0	39.15	16.0	1.36	2.8	0.24	2.4	0.16	N/A	N/A	1.0	0.29	N/A	0.69
61	Bur oak	2.6	78.30	11.6	0.99	1.3	0.11	2.2	0.15	N/A	N/A	0.9	0.27	N/A	0.52
62	American basswood	3.4	71.23	17.8	1.52	2.0	0.17	3.1	0.21	N/A	N/A	1.3	0.38	N/A	0.76
63	American elm	1.8	39.15	4.7	0.40	1.4	0.12	1.2	0.08	N/A	N/A	0.5	0.14	N/A	0.34
64	Siberian elm	3.6	26.62	29.0	2.48	4.1	0.35	3.2	0.21	N/A	N/A	1.4	0.39	N/A	0.95

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						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
65	Sugar maple	2.6	97.88	18.8	1.60	2.0	0.17	2.8	0.18	N/A	N/A	1.2	0.34	N/A	0.69
66	Swamp white oak	2.6	78.30	40.2	3.43	5.7	0.49	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.85
67	Pin oak	20.1	4,069.12	1,819.1	155.13	37.4	3.19	94.7	6.33	N/A	N/A	40.3	11.51	N/A	21.03
68	American elm	1.8	39.15	4.7	0.40	1.4	0.12	1.2	0.08	N/A	N/A	0.5	0.14	N/A	0.34
69	Pin oak	26.8	7,225.39	3,230.1	275.45	49.8	4.25	155.6	10.40	N/A	N/A	66.3	18.92	N/A	33.56
70	Eastern white pine	18.2	3,338.19	757.7	64.61	19.9	1.70	66.1	4.42	N/A	N/A	28.1	8.03	N/A	14.15
71	Eastern white pine	17.7	3,157.89	709.4	60.50	19.2	1.63	63.9	4.27	N/A	N/A	27.2	7.76	N/A	13.67
72	Eastern white pine	16.8	2,846.01	627.1	53.48	17.8	1.52	59.8	3.99	N/A	N/A	25.5	7.27	N/A	12.78
73	Northern red oak	2.1	78.30	8.4	0.72	1.6	0.14	1.7	0.12	N/A	N/A	0.7	0.21	N/A	0.46
74	Prairie crabapple	7.4	543.69	196.9	16.79	10.5	0.89	6.6	0.44	N/A	N/A	2.8	0.80	N/A	2.13
75	Prairie crabapple	10.5	933.42	463.6	39.54	17.3	1.47	12.2	0.81	N/A	N/A	5.2	1.48	N/A	3.77
76	Prairie crabapple	6.8	265.64	160.1	13.65	9.3	0.79	5.7	0.38	N/A	N/A	2.4	0.69	N/A	1.86
77	Sugar maple	1.8	97.88	7.6	0.65	1.2	0.10	1.3	0.08	N/A	N/A	0.5	0.15	N/A	0.34
78	Sugar maple	2.3	97.88	14.0	1.19	1.7	0.14	2.1	0.14	N/A	N/A	0.9	0.26	N/A	0.55
79	Sugar maple	2.4	97.88	15.5	1.32	1.8	0.15	2.3	0.16	N/A	N/A	1.0	0.28	N/A	0.59
80	Northern red oak	30.0	9,051.07	5,372.0	458.10	69.1	5.89	84.7	5.66	N/A	N/A	36.1	10.30	N/A	21.85
81	American elm	2.9	39.15	14.7	1.26	2.6	0.22	2.3	0.15	N/A	N/A	1.0	0.28	N/A	0.65
82	Star magnolia	9.5	792.95	367.9	31.37	10.4	0.89	21.6	1.44	N/A	N/A	9.2	2.62	N/A	4.95
83	Northern red oak	19.9	3,988.77	1,981.7	168.99	38.5	3.28	72.7	4.86	N/A	N/A	30.9	8.83	N/A	16.97
84	Norway maple	10.4	1,097.47	463.6	39.53	20.6	1.76	18.9	1.27	N/A	N/A	8.1	2.30	N/A	5.32
85	Blue spruce	10.9	1,379.75	385.0	32.83	7.9	0.68	22.7	1.52	N/A	N/A	9.7	2.76	N/A	4.96
86	Black maple	23.4	4,259.06	3,094.1	263.85	46.8	3.99	97.6	6.52	N/A	N/A	41.6	11.87	N/A	22.38
87	Swamp white oak	19.8	3,948.89	2,008.9	171.31	41.9	3.57	83.6	5.59	N/A	N/A	35.6	10.16	N/A	19.33
88	Green ash	21.9	4,828.48	1,409.8	120.22	25.5	2.18	81.7	5.46	N/A	N/A	34.8	9.93	N/A	17.57
89	Littleleaf linden	29.1	10,520.20	3,699.5	315.48	47.6	4.06	82.4	5.51	N/A	N/A	35.1	10.02	N/A	19.59
90	White ash	18.2	3,338.19	1,621.0	138.23	33.7	2.87	78.8	5.27	N/A	N/A	33.6	9.58	N/A	17.71
91	American basswood	18.0	2,574.91	908.0	77.43	18.9	1.61	77.6	5.19	N/A	N/A	33.0	9.43	N/A	16.23
92	White oak	18.2	4,046.93	1,649.9	140.70	25.0	2.13	87.4	5.84	N/A	N/A	37.2	10.63	N/A	18.60
93	Prairie crabapple	6.4	235.31	138.0	11.77	8.5	0.72	5.2	0.35	N/A	N/A	2.2	0.63	N/A	1.70
94	Pin oak	29.4	8,693.09	3,886.3	331.40	54.6	4.66	182.4	12.19	N/A	N/A	77.7	22.17	N/A	39.02
95	Thornless honeylocust	23.9	4,437.23	3,830.5	326.65	63.5	5.41	59.7	3.99	N/A	N/A	25.4	7.26	N/A	16.67
96	Black oak	32.1	10,385.36	8,238.0	702.50	95.6	8.16	78.6	5.26	N/A	N/A	33.5	9.56	N/A	22.97

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97	Northern red oak	31.6	9,837.65	6,094.8	519.74	74.4	6.34	85.2	5.70	N/A	N/A	36.3	10.36	N/A	22.39
98	Pin oak	31.7	9,899.16	4,517.3	385.22	58.9	5.02	207.5	13.87	N/A	N/A	88.4	25.22	N/A	44.11
99	Prairie crabapple	9.1	740.70	326.6	27.85	14.1	1.20	9.4	0.63	N/A	N/A	4.0	1.14	N/A	2.97
100	American elm	2.8	39.15	13.5	1.15	2.5	0.21	2.1	0.14	N/A	N/A	0.9	0.26	N/A	0.62
101	Bur oak	2.5	78.30	10.5	0.90	1.2	0.10	2.1	0.14	N/A	N/A	0.9	0.25	N/A	0.49
102	Green ash	37.7	13,432.83	4,415.9	376.56	44.1	3.76	175.8	11.75	N/A	N/A	74.9	21.37	N/A	36.88
103	Northern red oak	24.7	6,139.09	3,349.9	285.66	52.3	4.46	79.6	5.32	N/A	N/A	33.9	9.68	N/A	19.47
104	Freeman maple	5.5	186.40	219.8	18.74	18.2	1.55	12.0	0.80	N/A	N/A	5.1	1.46	N/A	3.81
105	Prairie crabapple	5.0	143.62	75.5	6.44	6.0	0.51	3.5	0.23	N/A	N/A	1.5	0.43	N/A	1.17
106	serviceberry spp	0.9	54.75	1.9	0.16	0.9	0.08	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.14
107	Green ash	25.2	6,389.69	1,893.6	161.48	30.0	2.56	99.5	6.65	N/A	N/A	42.4	12.09	N/A	21.31
108	Green ash	35.6	12,231.14	3,914.7	333.82	45.0	3.84	162.0	10.83	N/A	N/A	69.0	19.69	N/A	34.36
109	Swamp white oak	20.9	4,398.58	2,237.6	190.82	44.2	3.77	89.4	5.97	N/A	N/A	38.1	10.87	N/A	20.61
110	Sugar maple	13.9	2,313.88	976.3	83.25	18.3	1.56	49.2	3.29	N/A	N/A	21.0	5.99	N/A	10.84
111	Sugar maple	18.0	3,956.02	1,794.6	153.04	25.9	2.21	66.9	4.47	N/A	N/A	28.5	8.13	N/A	14.82
112	Thornless honeylocust	25.8	5,148.60	4,635.7	395.32	61.7	5.27	59.7	3.99	N/A	N/A	25.4	7.25	N/A	16.51
113	Northern hackberry	20.1	4,069.12	280.3	23.90	4.9	0.42	110.9	7.42	N/A	N/A	47.3	13.49	N/A	21.32
114	Norway maple	21.6	4,697.40	2,446.6	208.64	53.0	4.52	72.1	4.82	N/A	N/A	30.7	8.77	N/A	18.11
115	Northern hackberry	14.2	2,036.43	154.6	13.18	3.9	0.33	61.4	4.11	N/A	N/A	26.2	7.47	N/A	11.91
116	Washington hawthorn	7.8	586.40	190.9	16.28	9.6	0.82	5.0	0.34	N/A	N/A	2.1	0.61	N/A	1.76
117	Tulip tree	1.0	78.30	1.0	0.08	0.6	0.05	0.7	0.04	N/A	N/A	0.3	0.08	N/A	0.18
118	Northern red oak	2.1	78.30	8.4	0.72	1.6	0.14	1.7	0.12	N/A	N/A	0.7	0.21	N/A	0.46
119	Bur oak	2.3	78.30	8.5	0.73	1.1	0.09	1.8	0.12	N/A	N/A	0.8	0.22	N/A	0.44
120	Swamp white oak	2.5	78.30	37.6	3.21	5.5	0.47	1.8	0.12	N/A	N/A	0.8	0.22	N/A	0.81
121	Bur oak	9.4	898.59	284.8	24.29	8.4	0.72	27.2	1.82	N/A	N/A	11.6	3.31	N/A	5.84
122	Freeman maple	4.0	98.59	106.8	9.11	12.2	1.04	6.6	0.44	N/A	N/A	2.8	0.80	N/A	2.28
123	Northern red oak	23.9	5,748.56	3,092.3	263.70	49.9	4.26	78.4	5.24	N/A	N/A	33.4	9.53	N/A	19.03
124	American basswood	1.6	58.73	3.0	0.26	0.8	0.06	1.2	0.08	N/A	N/A	0.5	0.15	N/A	0.29
125	Bur oak	30.3	9,030.25	5,266.2	449.07	47.9	4.08	126.1	8.43	N/A	N/A	53.7	15.33	N/A	27.84
126	Swamp white oak	25.3	6,440.42	3,276.4	279.39	53.5	4.56	107.1	7.16	N/A	N/A	45.6	13.02	N/A	24.74
127	American elm	2.9	39.15	14.7	1.26	2.6	0.22	2.3	0.15	N/A	N/A	1.0	0.28	N/A	0.65
128	American basswood	36.7	9,774.79	4,871.6	415.43	47.9	4.09	114.5	7.66	N/A	N/A	48.8	13.92	N/A	25.67

## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
129	White oak	9.5	1,021.16	330.3	28.17	9.5	0.81	29.5	1.97	N/A	N/A	12.5	3.58	N/A	6.36
130	Swamp white oak	2.5	78.30	37.6	3.21	5.5	0.47	1.8	0.12	N/A	N/A	0.8	0.22	N/A	0.81
131	Kentucky Coffee tree	0.8	54.75	2.5	0.22	0.8	0.07	0.5	0.03	N/A	N/A	0.2	0.06	N/A	0.16
132	Swamp white oak	26.3	6,958.71	3,540.0	301.88	55.6	4.74	109.5	7.32	N/A	N/A	46.6	13.31	N/A	25.37
133	Siberian elm	3.5	25.16	27.1	2.31	4.0	0.34	3.0	0.20	N/A	N/A	1.3	0.37	N/A	0.91
134	Red maple	12.3	1,530.69	666.9	56.87	27.2	2.32	35.0	2.34	N/A	N/A	14.9	4.26	N/A	8.92
135	Pin oak	31.0	9,466.80	4,320.2	368.41	57.6	4.91	199.7	13.35	N/A	N/A	85.1	24.28	N/A	42.54
136	Siberian elm	0.8	19.58	0.8	0.07	0.6	0.05	0.5	0.04	N/A	N/A	0.2	0.07	N/A	0.15
137	White oak	35.7	15,235.71	8,848.9	754.60	68.3	5.83	107.0	7.16	N/A	N/A	45.6	13.01	N/A	25.99
138	Northern hackberry	20.6	4,273.53	292.4	24.93	5.0	0.43	116.3	7.77	N/A	N/A	49.5	14.14	N/A	22.34
139	Siberian elm	2.7	19.58	14.6	1.24	2.8	0.24	2.0	0.13	N/A	N/A	0.8	0.24	N/A	0.61
140	Black oak	7.6	593.43	271.6	23.16	13.4	1.14	15.6	1.04	N/A	N/A	6.7	1.90	N/A	4.09
141	Ginkgo	1.0	97.88	0.4	0.04	0.1	0.01	0.5	0.04	N/A	N/A	0.2	0.06	N/A	0.11
142	Northern red oak	41.2	15,351.69	11,610.7	990.11	80.6	6.88	112.6	7.53	N/A	N/A	48.0	13.70	N/A	28.10
143	European silver birch	5.0	179.73	136.1	11.61	10.9	0.93	9.2	0.61	N/A	N/A	3.9	1.11	N/A	2.65
144	Northern red oak	35.5	12,172.97	8,086.3	689.56	87.8	7.49	84.5	5.65	N/A	N/A	36.0	10.27	N/A	23.40
145	Green ash	32.2	10,205.41	3,170.0	270.32	40.0	3.41	140.5	9.39	N/A	N/A	59.8	17.08	N/A	29.87
146	American elm	25.6	3,548.52	2,734.7	233.21	53.1	4.53	79.8	5.34	N/A	N/A	34.0	9.70	N/A	19.57
147	Swamp white oak	2.1	78.30	28.2	2.40	4.6	0.40	1.4	0.10	N/A	N/A	0.6	0.18	N/A	0.67
148	Sugar maple	2.1	97.88	11.2	0.95	1.5	0.13	1.8	0.12	N/A	N/A	0.7	0.21	N/A	0.46
149	American elm	2.6	39.15	11.3	0.97	2.3	0.19	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.56
150	Black maple	27.2	5,707.58	4,363.3	372.08	56.8	4.84	121.0	8.09	N/A	N/A	51.5	14.71	N/A	27.64
151	Ginkgo	31.1	11,785.22	2,491.9	212.50	22.4	1.91	88.8	5.94	N/A	N/A	37.8	10.80	N/A	18.65
152	Freeman maple	7.6	569.23	457.5	39.01	27.4	2.34	22.2	1.49	N/A	N/A	9.5	2.70	N/A	6.52
153	Freeman maple	6.6	268.42	332.2	28.33	22.9	1.95	17.0	1.14	N/A	N/A	7.2	2.07	N/A	5.15
154	Thornless honeylocust	26.6	5,464.40	5,003.3	426.66	60.2	5.14	59.2	3.96	N/A	N/A	25.2	7.20	N/A	16.30
155	Sugar maple	2.4	97.88	15.5	1.32	1.8	0.15	2.3	0.16	N/A	N/A	1.0	0.28	N/A	0.59
156	Norway maple	19.4	3,791.39	1,915.1	163.31	46.1	3.93	60.6	4.05	N/A	N/A	25.8	7.36	N/A	15.35
157	Green ash	23.3	5,464.10	1,605.9	136.95	27.4	2.34	89.1	5.96	N/A	N/A	38.0	10.84	N/A	19.13
158	Ginkgo	1.4	97.88	1.0	0.08	0.2	0.02	0.7	0.05	N/A	N/A	0.3	0.09	N/A	0.16
159	Northern red oak	2.1	78.30	8.4	0.72	1.6	0.14	1.7	0.12	N/A	N/A	0.7	0.21	N/A	0.46
160	Norway maple	17.8	3,193.55	1,573.8	134.21	41.3	3.52	52.2	3.49	N/A	N/A	22.2	6.35	N/A	13.36

## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
161	Norway maple	16.5	2,745.67	1,324.0	112.90	37.4	3.19	45.6	3.05	N/A	N/A	19.4	5.54	N/A	11.78
162	Washington hawthorn	11.9	1,153.67	536.9	45.79	17.6	1.50	10.9	0.73	N/A	N/A	4.6	1.32	N/A	3.55
163	Washington hawthorn	7.8	586.40	190.9	16.28	9.6	0.82	5.0	0.34	N/A	N/A	2.1	0.61	N/A	1.76
164	Washington hawthorn	7.4	543.69	167.9	14.31	8.9	0.76	4.6	0.31	N/A	N/A	1.9	0.56	N/A	1.62
165	Black oak	32.6	10,697.51	8,542.4	728.46	97.5	8.32	77.0	5.15	N/A	N/A	32.8	9.36	N/A	22.82
166	Roughleaf dogwood	12.3	1,221.65	989.2	84.36	28.4	2.42	17.2	1.15	N/A	N/A	7.3	2.09	N/A	5.65
167	Kentucky Coffee tree	1.1	54.75	4.3	0.36	1.1	0.10	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.21
168	Green ash	23.3	5,464.10	1,605.9	136.95	27.4	2.34	89.1	5.96	N/A	N/A	38.0	10.84	N/A	19.13
169	Freeman maple	7.6	569.23	457.5	39.01	27.4	2.34	22.2	1.49	N/A	N/A	9.5	2.70	N/A	6.52
170	cottonwood spp	17.9	1,184.78	3,281.1	279.80	72.4	6.18	67.1	4.49	N/A	N/A	28.6	8.16	N/A	18.82
171	Washington hawthorn	6.8	265.64	136.5	11.64	7.9	0.67	3.9	0.26	N/A	N/A	1.7	0.48	N/A	1.42
172	Green ash	40.1	14,759.93	5,027.6	428.73	41.2	3.52	191.3	12.79	N/A	N/A	81.5	23.26	N/A	39.57
173	Scots pine	15.7	2,486.92	687.2	58.60	18.4	1.57	56.0	3.74	N/A	N/A	23.8	6.81	N/A	12.12
174	Red maple	2.5	78.30	14.6	1.24	3.1	0.27	1.5	0.10	N/A	N/A	0.6	0.18	N/A	0.55
175	Roughleaf dogwood	7.9	597.42	355.9	30.35	16.6	1.42	7.7	0.51	N/A	N/A	3.3	0.93	N/A	2.86
176	Roughleaf dogwood	18.4	2,536.90	2,518.2	214.74	2.6	0.22	33.9	2.27	N/A	N/A	14.4	4.12	N/A	6.61
177	Washington hawthorn	3.1	55.21	20.0	1.70	2.6	0.22	1.2	0.08	N/A	N/A	0.5	0.14	N/A	0.44
178	American elm	2.9	39.15	14.7	1.26	2.6	0.22	2.3	0.15	N/A	N/A	1.0	0.28	N/A	0.65
179	White ash	18.7	3,523.51	1,728.9	147.43	34.9	2.98	80.1	5.36	N/A	N/A	34.1	9.74	N/A	18.08
180	Northern hackberry	20.2	4,109.60	282.7	24.11	5.0	0.42	112.0	7.49	N/A	N/A	47.7	13.62	N/A	21.53
181	Freeman maple	7.5	557.86	443.9	37.86	27.0	2.30	21.7	1.45	N/A	N/A	9.2	2.63	N/A	6.38
182	Roughleaf dogwood	0.6	54.75	0.7	0.06	0.6	0.05	0.4	0.03	N/A	N/A	0.2	0.05	N/A	0.12
183	Roughleaf dogwood	0.6	54.75	0.7	0.06	0.6	0.05	0.4	0.03	N/A	N/A	0.2	0.05	N/A	0.12
184	Roughleaf dogwood	0.5	54.75	0.5	0.04	0.4	0.04	0.4	0.02	N/A	N/A	0.2	0.04	N/A	0.10
185	Swamp white oak	2.9	78.30	48.6	4.15	6.3	0.54	2.3	0.15	N/A	N/A	1.0	0.27	N/A	0.96
186	Sugar maple	2.2	97.88	12.5	1.07	1.6	0.13	1.9	0.13	N/A	N/A	0.8	0.24	N/A	0.50
187	Ohio buckeye	9.1	757.94	627.8	53.54	34.1	2.91	33.2	2.22	N/A	N/A	14.1	4.04	N/A	9.16
188	Swamp white oak	21.7	4,740.90	2,411.8	205.67	45.9	3.92	93.3	6.24	N/A	N/A	39.7	11.34	N/A	21.50
189	Thornless honeylocust	19.3	2,940.20	2,253.4	192.16	45.9	3.92	53.7	3.59	N/A	N/A	22.9	6.53	N/A	14.03
190	Swamp white oak	5.6	257.66	165.9	14.15	12.0	1.02	7.4	0.50	N/A	N/A	3.2	0.90	N/A	2.42
191	Swamp white oak	26.2	6,905.98	3,513.2	299.59	55.4	4.72	109.3	7.30	N/A	N/A	46.5	13.28	N/A	25.31
192	White ash	36.7	12,865.31	8,581.6	731.80	85.1	7.25	96.9	6.48	N/A	N/A	41.3	11.78	N/A	25.51

## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
193	Freeman maple	7.1	513.86	392.0	33.43	25.1	2.14	19.5	1.31	N/A	N/A	8.3	2.37	N/A	5.82
194	Northern hackberry	20.8	4,356.70	297.3	25.35	5.1	0.43	118.4	7.92	N/A	N/A	50.5	14.40	N/A	22.75
195	Swamp white oak	27.6	7,662.53	3,898.1	332.41	58.3	4.97	111.4	7.45	N/A	N/A	47.5	13.54	N/A	25.97
196	Thornless honeylocust	24.1	4,509.55	3,910.9	333.50	63.8	5.44	59.8	4.00	N/A	N/A	25.5	7.27	N/A	16.71
197	Black oak	2.8	80.26	26.7	2.27	3.6	0.31	1.7	0.12	N/A	N/A	0.7	0.21	N/A	0.64
198	Swamp white oak	5.4	239.58	154.7	13.19	11.6	0.99	6.9	0.46	N/A	N/A	2.9	0.84	N/A	2.28
199	White ash	21.6	4,697.40	2,435.2	207.66	42.6	3.63	83.8	5.60	N/A	N/A	35.7	10.19	N/A	19.42
200	Kentucky Coffee tree	7.1	513.14	201.6	17.19	10.7	0.91	10.2	0.68	N/A	N/A	4.4	1.24	N/A	2.84
201	American basswood	2.6	58.73	9.5	0.81	1.4	0.12	2.1	0.14	N/A	N/A	0.9	0.26	N/A	0.52
202	Kentucky Coffee tree	0.6	54.75	1.7	0.14	0.7	0.06	0.4	0.03	N/A	N/A	0.2	0.05	N/A	0.14
203	White oak	3.3	111.84	24.0	2.05	2.1	0.18	3.2	0.22	N/A	N/A	1.4	0.39	N/A	0.79
204	Kentucky Coffee tree	3.4	66.41	38.3	3.26	4.0	0.34	2.6	0.18	N/A	N/A	1.1	0.32	N/A	0.83
205	Thornless honeylocust	22.7	4,015.96	3,369.6	287.34	58.7	5.00	59.1	3.95	N/A	N/A	25.2	7.18	N/A	16.13
206	Thornless honeylocust	19.4	2,969.36	2,282.4	194.63	46.3	3.95	53.9	3.60	N/A	N/A	23.0	6.55	N/A	14.11
207	Kentucky Coffee tree	2.9	54.75	27.3	2.32	3.2	0.28	2.0	0.14	N/A	N/A	0.9	0.25	N/A	0.66
208	Black oak	3.1	80.93	33.8	2.88	4.1	0.35	2.2	0.14	N/A	N/A	0.9	0.26	N/A	0.76
209	Swamp white oak	3.0	78.30	51.6	4.40	6.5	0.56	2.4	0.16	N/A	N/A	1.0	0.29	N/A	1.00
210	Swamp white oak	3.4	94.98	64.7	5.52	7.4	0.63	2.9	0.19	N/A	N/A	1.2	0.35	N/A	1.17
211	Swamp white oak	2.9	78.30	48.6	4.15	6.3	0.54	2.3	0.15	N/A	N/A	1.0	0.27	N/A	0.96
212	Northern red oak	2.9	78.30	18.4	1.57	2.5	0.22	3.1	0.21	N/A	N/A	1.3	0.38	N/A	0.80
213	Northern red oak	3.5	100.65	29.1	2.48	3.3	0.28	4.5	0.30	N/A	N/A	1.9	0.54	N/A	1.13
214	Sugar maple	10.7	1,325.50	526.9	44.93	12.9	1.10	34.4	2.30	N/A	N/A	14.7	4.19	N/A	7.58
215	Kentucky Coffee tree	3.3	62.56	35.9	3.06	3.8	0.32	2.5	0.17	N/A	N/A	1.1	0.30	N/A	0.79
216	Tulip tree	0.5	78.30	0.2	0.02	0.2	0.02	0.5	0.03	N/A	N/A	0.2	0.06	N/A	0.10
217	Swamp white oak	2.0	78.30	26.1	2.23	4.4	0.38	1.4	0.09	N/A	N/A	0.6	0.17	N/A	0.63
218	Kentucky Coffee tree	2.6	54.75	21.7	1.85	2.8	0.24	1.7	0.11	N/A	N/A	0.7	0.21	N/A	0.57
219	Swamp white oak	3.9	124.97	83.4	7.11	8.4	0.72	3.7	0.24	N/A	N/A	1.6	0.45	N/A	1.41
220	Scots pine	23.8	5,700.64	1,612.8	137.53	28.6	2.44	61.8	4.13	N/A	N/A	26.3	7.51	N/A	14.08
221	White ash	21.4	4,611.02	2,382.0	203.12	42.0	3.58	83.7	5.60	N/A	N/A	35.7	10.18	N/A	19.36
222	Green ash	19.9	3,988.77	1,152.7	98.30	22.8	1.95	77.3	5.17	N/A	N/A	32.9	9.40	N/A	16.51
223	Thornless honeylocust	27.3	5,748.63	5,339.0	455.29	58.6	5.00	58.7	3.93	N/A	N/A	25.0	7.14	N/A	16.07
224	Scots pine	22.1	4,916.88	1,387.9	118.35	26.5	2.26	63.6	4.25	N/A	N/A	27.1	7.73	N/A	14.24



## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
225	Thornless honeylocust	25.6	5,071.16	4,546.5	387.71	62.1	5.29	59.7	3.99	N/A	N/A	25.4	7.26	N/A	16.55
226	Washington hawthorn	1.0	54.75	1.3	0.11	0.5	0.05	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.10
227	Washington hawthorn	1.1	54.75	1.6	0.14	0.6	0.05	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.12
228	Washington hawthorn	1.1	54.75	1.6	0.14	0.6	0.05	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.12
229	Thornless honeylocust	24.1	4,509.55	3,910.9	333.50	63.8	5.44	59.8	4.00	N/A	N/A	25.5	7.27	N/A	16.71
230	Pin oak	22.2	4,961.37	2,218.0	189.14	41.3	3.52	112.4	7.52	N/A	N/A	47.9	13.67	N/A	24.71
231	Thornless honeylocust	22.7	4,015.96	3,369.6	287.34	58.7	5.00	59.1	3.95	N/A	N/A	25.2	7.18	N/A	16.13
232	Thornless honeylocust	23.3	4,223.88	3,595.5	306.61	61.0	5.21	59.5	3.98	N/A	N/A	25.3	7.23	N/A	16.41
233	Thornless honeylocust	25.8	5,148.60	4,635.7	395.32	61.7	5.27	59.7	3.99	N/A	N/A	25.4	7.25	N/A	16.51
234	Eastern red cedar	2.6	70.77	19.2	1.64	1.5	0.13	1.4	0.10	N/A	N/A	0.6	0.17	N/A	0.40
235	Eastern red cedar	2.8	70.77	22.5	1.92	1.7	0.14	1.6	0.11	N/A	N/A	0.7	0.20	N/A	0.45
236	Scots pine	17.9	3,229.41	902.3	76.94	21.2	1.81	62.0	4.15	N/A	N/A	26.4	7.54	N/A	13.50
237	Scots pine	16.3	2,679.77	743.1	63.37	19.2	1.63	58.0	3.88	N/A	N/A	24.7	7.06	N/A	12.57
238	Scots pine	19.2	3,713.85	1,042.0	88.86	22.9	1.95	63.7	4.26	N/A	N/A	27.1	7.75	N/A	13.96
239	Star magnolia	5.4	167.52	94.3	8.04	4.7	0.40	8.0	0.54	N/A	N/A	3.4	0.97	N/A	1.91
240	Thornless honeylocust	26.9	5,585.31	5,145.5	438.79	59.6	5.08	59.1	3.95	N/A	N/A	25.2	7.18	N/A	16.21
241	Northern red oak	1.3	78.30	2.6	0.22	0.8	0.07	0.9	0.06	N/A	N/A	0.4	0.10	N/A	0.23
242	Black oak	32.2	10,447.97	8,298.4	707.65	96.0	8.19	78.3	5.23	N/A	N/A	33.3	9.52	N/A	22.94
243	Scots pine	15.2	2,331.73	642.0	54.75	17.7	1.51	54.0	3.61	N/A	N/A	23.0	6.57	N/A	11.70
244	Scots pine	16.5	2,745.67	762.3	65.00	19.4	1.66	58.7	3.92	N/A	N/A	25.0	7.13	N/A	12.71
245	Scots pine	13.3	1,787.83	483.6	41.24	15.3	1.30	45.0	3.01	N/A	N/A	19.2	5.47	N/A	9.78
246	Scots pine	8.3	703.02	171.5	14.63	8.8	0.75	17.0	1.13	N/A	N/A	7.2	2.06	N/A	3.95
247	Scots pine	13.8	1,923.93	523.3	44.62	15.9	1.36	47.6	3.18	N/A	N/A	20.3	5.79	N/A	10.33
248	Swamp white oak	2.6	78.30	40.2	3.43	5.7	0.49	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.85
249	Eastern white pine	26.6	7,118.12	1,866.6	159.17	34.1	2.91	104.6	6.99	N/A	N/A	44.5	12.71	N/A	22.62
250	Eastern white pine	19.8	3,948.89	925.7	78.94	22.5	1.92	74.4	4.98	N/A	N/A	31.7	9.05	N/A	15.94
251	Scots pine	17.7	3,157.89	881.6	75.18	21.0	1.79	61.6	4.12	N/A	N/A	26.3	7.50	N/A	13.40
252	Scots pine	7.8	622.17	149.2	12.72	8.2	0.70	14.6	0.98	N/A	N/A	6.2	1.78	N/A	3.46
253	Scots pine	12.7	1,631.13	437.9	37.34	14.5	1.23	41.7	2.79	N/A	N/A	17.8	5.07	N/A	9.09
254	Washington hawthorn	7.1	513.14	151.7	12.94	8.4	0.72	4.3	0.28	N/A	N/A	1.8	0.52	N/A	1.52
255	American basswood	1.6	58.73	3.0	0.26	0.8	0.06	1.2	0.08	N/A	N/A	0.5	0.15	N/A	0.29
256	Green ash	22.3	5,006.07	1,464.5	124.88	26.1	2.22	83.8	5.60	N/A	N/A	35.7	10.19	N/A	18.01



## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
257	Scots pine	16.8	2,846.01	791.3	67.48	19.8	1.69	59.5	3.98	N/A	N/A	25.4	7.24	N/A	12.90
258	Northern red oak	18.0	3,265.47	1,552.9	132.43	33.4	2.84	70.8	4.74	N/A	N/A	30.2	8.61	N/A	16.19
259	Scots pine	9.6	936.76	237.3	20.23	10.5	0.89	23.8	1.59	N/A	N/A	10.1	2.89	N/A	5.37
260	Scots pine	11.5	1,339.44	353.1	30.11	12.9	1.10	34.8	2.32	N/A	N/A	14.8	4.23	N/A	7.65
261	Scots pine	13.9	1,951.75	531.4	45.31	16.0	1.37	48.1	3.22	N/A	N/A	20.5	5.85	N/A	10.43
262	Ginkgo	1.0	97.88	0.4	0.04	0.1	0.01	0.5	0.04	N/A	N/A	0.2	0.06	N/A	0.11
263	Northern hackberry	17.0	2,913.91	210.4	17.94	4.4	0.37	80.5	5.38	N/A	N/A	34.3	9.79	N/A	15.54
264	Tulip tree	1.3	78.30	2.0	0.17	0.9	0.08	0.8	0.05	N/A	N/A	0.3	0.10	N/A	0.23
265	Black oak	3.8	121.61	54.2	4.62	5.4	0.46	3.3	0.22	N/A	N/A	1.4	0.41	N/A	1.09
266	Sugar maple	3.6	133.10	40.7	3.47	3.0	0.26	5.3	0.35	N/A	N/A	2.3	0.64	N/A	1.26
267	Scots pine	17.3	3,017.27	840.9	71.71	20.5	1.74	60.8	4.06	N/A	N/A	25.9	7.39	N/A	13.20
268	Prairie crabapple	11.9	1,153.67	629.9	53.71	20.7	1.76	15.3	1.02	N/A	N/A	6.5	1.86	N/A	4.65
269	Prairie crabapple	11.7	1,120.52	604.3	51.53	20.2	1.72	14.8	0.99	N/A	N/A	6.3	1.80	N/A	4.52
270	Scots pine	16.9	2,879.86	801.1	68.32	19.9	1.70	59.8	4.00	N/A	N/A	25.5	7.27	N/A	12.97
271	Blue spruce	2.6	97.88	18.2	1.55	1.4	0.12	1.2	0.08	N/A	N/A	0.5	0.15	N/A	0.34
272	Blue spruce	2.5	97.88	16.9	1.44	1.3	0.11	1.1	0.08	N/A	N/A	0.5	0.14	N/A	0.32
273	Blue spruce	2.8	97.88	21.0	1.79	1.5	0.13	1.3	0.09	N/A	N/A	0.6	0.16	N/A	0.38
274	Blue spruce	2.6	97.88	18.2	1.55	1.4	0.12	1.2	0.08	N/A	N/A	0.5	0.15	N/A	0.34
275	Blue spruce	2.6	97.88	18.2	1.55	1.4	0.12	1.2	0.08	N/A	N/A	0.5	0.15	N/A	0.34
276	Thornless honeylocust	16.3	2,135.64	1,486.1	126.73	35.7	3.04	44.7	2.99	N/A	N/A	19.0	5.43	N/A	11.46
277	Blue spruce	2.8	97.88	21.0	1.79	1.5	0.13	1.3	0.09	N/A	N/A	0.6	0.16	N/A	0.38
278	Blue spruce	3.0	97.88	24.0	2.04	1.6	0.14	1.5	0.10	N/A	N/A	0.6	0.18	N/A	0.42
279	Blue spruce	2.8	97.88	21.0	1.79	1.5	0.13	1.3	0.09	N/A	N/A	0.6	0.16	N/A	0.38
280	Prairie crabapple	4.8	132.36	68.3	5.82	5.6	0.48	3.3	0.22	N/A	N/A	1.4	0.40	N/A	1.10
281	Thornless honeylocust	16.3	2,135.64	1,486.1	126.73	35.7	3.04	44.7	2.99	N/A	N/A	19.0	5.43	N/A	11.46
282	Roughleaf dogwood	5.4	167.52	148.3	12.65	10.2	0.87	4.0	0.27	N/A	N/A	1.7	0.49	N/A	1.62
283	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
284	Blue spruce	2.9	97.88	22.4	1.91	1.6	0.13	1.4	0.09	N/A	N/A	0.6	0.17	N/A	0.40
285	Eastern red cedar	1.5	70.77	6.2	0.53	0.8	0.07	0.7	0.04	N/A	N/A	0.3	0.08	N/A	0.19
286	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
287	Eastern red cedar	1.3	70.77	4.7	0.40	0.7	0.06	0.6	0.04	N/A	N/A	0.2	0.07	N/A	0.16
288	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18

## Benefits and Costs Summary of Individual Trees

Location: Cedar Rapids, Linn, Iowa, United States of America

Project: Coe Tree Archive, Series: West Campus, Year: 2022

Generated: 12/4/2022



Tree ID	Species Name	DBH (in)	Replacement Value (\$)	Carbon Storage (lb)	Carbon Storage (\$)	Annual benefits									Total Annual Benefits (\$/yr)
						Gross Carbon Sequestration		Avoided Runoff		Carbon Avoided		Pollution Removal		Energy Savings	
						(lb/yr)	(\$/yr)	(ft³/yr)	(\$/yr)	(lb/yr)	(\$/yr)	(oz/yr)	(\$/yr)	(\$/yr)	
289	Swamp white oak	2.6	78.30	40.2	3.43	5.7	0.49	1.9	0.13	N/A	N/A	0.8	0.23	N/A	0.85
290	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
291	Eastern red cedar	1.5	70.77	6.2	0.53	0.8	0.07	0.7	0.04	N/A	N/A	0.3	0.08	N/A	0.19
292	Blue spruce	2.9	97.88	22.4	1.91	1.6	0.13	1.4	0.09	N/A	N/A	0.6	0.17	N/A	0.40
293	Eastern red cedar	1.5	70.77	6.2	0.53	0.8	0.07	0.7	0.04	N/A	N/A	0.3	0.08	N/A	0.19
294	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
295	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
296	Eastern red cedar	1.3	70.77	4.7	0.40	0.7	0.06	0.6	0.04	N/A	N/A	0.2	0.07	N/A	0.16
297	Eastern red cedar	1.4	70.77	5.4	0.46	0.7	0.06	0.6	0.04	N/A	N/A	0.3	0.07	N/A	0.18
298	Thornless honeylocust	15.0	1,829.11	1,212.2	103.37	31.5	2.69	39.8	2.66	N/A	N/A	17.0	4.84	N/A	10.19
299	Norway maple	7.5	576.06	221.2	18.87	13.6	1.16	10.1	0.67	N/A	N/A	4.3	1.23	N/A	3.06
300	serviceberry spp	0.9	54.75	1.9	0.16	0.9	0.08	0.3	0.02	N/A	N/A	0.1	0.04	N/A	0.14
<b>Total</b>			<b>756,346</b>	<b>395,803</b>	<b>33,752</b>	<b>6,066</b>	<b>517</b>	<b>11,772</b>	<b>787</b>	<b>N/A</b>	<b>N/A</b>	<b>5,014</b>	<b>1,431</b>	<b>N/A</b>	<b>2,735</b>

Carbon storage and gross carbon sequestration value is calculated based on the price of \$0.08528 per pound.

Due to limits of available models, i-Tree Eco will limit carbon storage to a maximum of 7,500 kg (16,534.7 lbs) and not estimate additional storage for any tree beyond a diameter of 254 cm (100 in). Whichever limit results in lower carbon storage is used.

Avoided runoff value is calculated by the price \$0.067/ft³. The user-designated weather station reported 42.7 inches of total annual precipitation. Eco will always use the hourly measurements that have the greatest total rainfall or user-submitted rainfall if provided.

Energy saving value is calculated based on the prices of \$127.40 per MWH and \$9.25 per MBTU. Trees less than or equal to 10ft/3m tall or further than 60ft/18m away from buildings do not provide energy benefits to nearby buildings.

Pollution removal value is calculated based on the prices of \$0.72 per pound (CO), \$1.42 per pound (O3), \$0.21 per pound (NO2), \$0.09 per pound (SO2), \$76.00 per pound (PM2.5), \$3.39 per pound (PM10\*).

Replacement value is the estimated local cost of having to replace a tree with a similar tree.

A value of zero may indicate that ancillary data (pollution, weather, energy, etc.) is not available for this location or that the reported amounts are too small to be shown.