

Annual Tree Ring for 11 Sugar Maple Trees Cored in 2019 for the NH 7-9 Case Study

Tree age in 2019	95 years	94 years	110 years	127 years	113 years	90 years	89 years	101 years	124 years	99 years	109 years	
	Tree Number											
	1	2	3	4	5	6	7	8	9	10	11	
Year	Annual Tree Ring Increment (Millimeters)											NOTES
2019	2.164	2.036	1.551	1.77	1.691	3.433	3.961	2.343	3.242	1.755	4.329	
2018	1.902	1.524	1.768	1.851	3.002	3.082	2.37	2.441	3.161	0.666	2.476	
2017	1.305	1.967	1.398	1.711	3.235	2.817	1.591	2.213	4.058	1.034	3.379	
2016	1.607	2.983	1.261	1.418	1.726	3.304	3.286	2.593	4.658	0.638	3.661	
2015	2.224	2.474	2.3	2.39	2.596	3.738	3.526	2.877	3.832	0.573	3.874	
2014	0.505	2.259	0.996	0.996	2.376	2.741	3.15	1.943	2.295	1.526	1.902	What happened in 2014 to cause 2015 growth increases?
2013	1.095	1.961	0.964	0.88	1.318	2.446	2.57	2.129	1.667	1.689	2.177	
2012	1.024	1.781	0.466	0.27	2.756	2.61	2.641	2.324	2.265	0.714	2.098	
2011	1.916	1.745	0.745	0.657	1.241	1.842	1.652	1.769	2.25	0.572	1.152	
2010	1.579	1.991	2.159	0.144	2.843	0.502	0.557	0.926	1.022	1.281	1.877	
2009	1.965	1.845	1.468	1.149	1.69	0.342	0.412	1.07	0.602	0.672	1.198	Salvage harvest 2009
2008	1.263	1.911	1.239	0.569	1.785	0.515	0.396	1.424	0.809	0.567	0.99	Windstorm 2008 with patchy blowdown
2007	2.654	2.214	1.239	0.234	1.019	0.557	0.439	1.287	0.817	0.484	0.748	
2006	2.023	1.746	0.589	0.744	0.846	0.661	0.332	1.641	0.799	0.546	1.44	
2005	1.194	1.364	1.589	0.686	2.326	0.547	0.299	1.657	1.14	0.8	0.991	
2004	1.109	1.298	1.658	0.728	2.499	0.776	0.321	1.488	0.913	0.934	0.874	
2003	1.665	1.171	1.298	1.906	2.227	0.69	0.823	0.998	0.484	0.739	0.824	
2002	1.488	1.469	1.267	1.31	1.458	0.655	0.449	1.335	0.926	0.691	1.157	
2001	1.093	1.528	2.068	0.506	2.27	0.609	0.299	0.917	0.816	0.639	1.537	
2000	2.506	1.376	1.207	0.59	2.183	0.91	0.305	0.515	0.565	1.196	1.35	
1999	2.193	1.816	1.842	0.729	3.125	1.199	0.561	0.603	1.648	0.758	1.715	
1998	1.051	1.836	1.816	1.321	3.236	1.24	0.599	0.644	0.789	0.422	1.443	
1997	1.876	1.55	0.945	1.106	2.709	1.051	0.556	0.645	0.463	0.852	1.026	
1996	2.501	1.659	1.034	0.867	2.534	1.463	0.936	0.873	0.465	0.979	1.552	

1995	1.502	1.564	1.353	1.288	1.505	1.2	0.69	0.797	0.983	1.489	0.916	
1994	1.52	2.072	1.23	0.564	1.824	1.51	0.786	1.22	1.704	1.59	1.584	
1993	1.69	2.965	2.068	0.98	2.336	0.925	0.931	1.015	1.124	0.778	1.605	
1992	1.176	2.866	1.571	1.123	1.766	1.289	1.037	0.517	0.769	0.543	1.117	
1991	1.426	2.978	0.939	1.341	1.131	1.274	1.358	1.084	1.044	0.65	0.667	
1990	2.593	1.937	1.201	2.373	3.118	1.177	0.701	0.896	0.982	0.833	0.892	
1989	1.827	2.909	1.299	1.513	1.788	1.101	1.214	0.841	1.133	0.724	1.544	
1988	2.164	2.527	1.118	2.18	1.425	2.107	1.679	0.711	1.88	1.054	1.342	
1987	2.177	1.983	1.599	2.334	2.938	2.009	1.711	1.02	1.634	0.51	1.638	
1986	2.347	3.874	1.608	1.57	2.426	2.205	1.471	1.417	1.77	0.516	1.56	
1985	1.401	2.897	1.618	2.055	2.938	2.233	1.321	0.983	1.407	0.477	1.593	
1984	1.128	3.33	1.674	3.047	2.834	1.767	1.417	1.383	1.309	0.738	0.955	
1983	2.258	2.834	1.618	2.591	2.975	2.057	1.113	1.041	1.406	0.752	0.793	
1982	2.387	2.869	1.552	1.417	1.933	2.604	1.098	1.047	1.086	1.244	1.3	
1981	1.886	2.37	1.44	1.185	1.766	1.868	1.066	0.884	1.256	1.353	0.864	
1980	1.307	2.844	2.221	0.922	1.965	2.389	1.649	1.073	1.008	1.364	1.794	
1979	0.831	2.566	2.745	0.911	2.353	2.036	1.358	1.377	1.185	1.296	1.002	
1978	1.114	3.076	3.458	0.367	3.043	1.493	1.145	1.338	0.973	0.995	0.932	
1977	1.418	3.639	2.912	0.202	3.552	1.514	1.232	1.452	0.852	1.096	0.807	
1976	1.618	3.459	2.644	0.25	2.806	1.63	1.411	1.273	0.696	1.075	0.606	
1975	0.461	2.091	1.941	0.463	1.043	1.364	1.342	1.392	1.115	0.897	0.954	Thinned in 1974/5
1974	0.643	2.154	1.339	0.411	0.63	1.45	1.546	1.073	1.051	0.836	0.45	
1973	0.819	1.726	1.227	0.489	0.409	1.82	1.399	1.311	1.427	1.194	1.032	
1972	1.086	1.239	1.206	0.351	2.43	1.605	1.038	1.051	1.242	1.304	0.706	
1971	0.955	1.74	1.195	0.438	0.485	1.892	1.892	0.807	0.809	0.843	1.596	
1970	0.628	1.383	1.06	0.384	0.541	1.985	1.752	1.127	1.603	0.893	1.887	
1969	0.997	1.483	1.71	0.542	0.751	1.301	1.984	1.377	1.694	1.126	1.679	
1968	1.135	1.631	1.54	0.831	0.776	1.116	2.091	1.014	1.418	1.582	0.988	
1967	0.721	1.392	1.294	1.835	0.7	0.884	1.718	1.062	0.977	1.416	1.558	
1966	0.917	0.609	1.205	1.383	0.488	1.276	1.87	1.165	0.99	2.053	1.421	
1965	1.23	0.413	1.194	0.611	0.499	1.418	1.924	1.268	1.253	1.782	1.205	
1964	1.277	0.547	1.183	1.25	0.772	1.257	2.315	1.382	0.94	1.794	1.773	
1963	1.406	0.564	1.183	1.49	0.506	0.825	2.173	1.564	0.982	1.977	1.729	
1962	1.41	0.649	1.306	1.322	0.513	0.944	2.883	1.622	0.911	2.409	2.085	
1961	1.566	0.502	1.317	0.852	0.745	0.908	4.264	1.17	1.349	2.373	1.638	
1960	1.19	0.481	1.384	0.767	0.593	0.865	2.968	1.464	1.58	1.774	1.887	
1959	1.506	0.315	0.859	1.001	0.495	1.546	3.514	1.784	1.863	1.908	1.279	

1958	1.351	0.42	1.774	0.939	0.866	1.529	3.74	1.828	1.427	1.355	1.42	
1957	0.665	0.647	1.574	0.98	0.838	1.468	3.254	1.929	1.47	1.47	1.58	
1956	1.014	1.011	2.053	0.881	0.886	1.741	1.098	1.562	1.867	1.483	0.876	
1955	1.041	0.656	1.362	0.461	2.417	1.891	0.713	1.664	1.478	2.452	0.538	
1954	1.492	1.482	1.645	0.544	1.191	1.285	0.859	1.99	1.933	2.349	0.811	
1953	2.019	1.346	1.93	0.133	1.184	2.039	1.237	1.995	2.037	2.395	0.784	
1952	1.228	1.79	2.486	0.783	1.255	0.985	1.798	2.449	2.129	1.535	0.942	
1951	1.967	1.647	0.916	0.649	1.304	1.176	1.605	2.634	2.545	1.75	1.011	
1950	1.602	1.088	1.007	0.389	1.741	1.806	1.06	3.068	2.575	2.215	0.745	
1949	1.13	1.247	0.67	0.32	1.757	2.526	0.672	2.062	1.782	2.107	0.857	
1948	1.117	1.202	0.825	0.516	2.94	1.958	0.669	2.329	1.672	1.097	0.908	
1947	0.488	0.786	0.977	0.827	1.226	1.451	0.969	3.016	2.207	1.547	0.617	
1946	1.548	0.928	0.633	0.499	1.039	0.752	1.125	2.805	1.973	2.688	0.486	
1945	1.265	2.184	0.73	0.412	0.712	0.752	1.739	2.066	1.208	2.191	0.514	
1944	1.12	0.594	0.94	0.374	0.808	0.989	1.392	2.163	0.927	2.223	1.435	
1943	0.843	0.552	0.873	0.593	1.5	0.996	1.469	3.287	1.978	2.197	1.108	
1942	1.172	1.19	1.101	0.929	3.25	1.368	1.312	2.82	1.857	2.286	1.06	
1941	1.344	0.998	0.576	0.643	1.264	0.92	0.889	3.46	1.608	2.265	0.614	
1940	1.607	1.098	0.359	1.096	1.015	1.342	1.261	1.958	1.692	1.388	0.794	
1939	1.503	0.672	0.579	1.877	1.371	1.11	1.141	1.735	1.279	2.034	0.766	
1938	2.204	0.822	1.322	1.901	1.966	0.807	0.494	2.237	1.783	0.959	0.882	
1937	1.149	1.174	0.689	1.029	2.615	1.663	0.748	1.244	1.06	1.274	1.02	
1936	0.994	0.777	0.512	0.73	1.176	0.99	0.798	2.175	1.468	1.262	1.13	
1935	1.054	1.238	0.946	0.956	0.765	1.15	NA	1.75	1.261	1.2	1.459	
1934	1.013	1.856	0.6	0.497	1.152	NA	NA	1.49	1.335	1.214	1.522	
1933	1.918	1.158	1.013	0.315	0.984	NA	NA	1.738	1.282	1.155	4.062	
1932	1.529	1.14	1.069	0.389	1.026	NA	NA	1.208	1.12	1.577	1.499	
1931	1.134	1.661	0.888	0.504	0.893	NA	NA	0.893	1.21	2.471	1.263	
1930	0.502	NA	1.158	0.419	0.956	NA	NA	1.367	1.316	1.654	0.84	
1929	0.923	NA	1.317	0.54	3.682	NA	NA	1.156	0.975	1.935	2.223	
1928	0.569	NA	0.814	10000	0.979	NA	NA	1.044	0.949	2.051	2.058	
1927	0.927	NA	0.575	2.729	1.746	NA	NA	0.841	0.832	2.811	2.123	
1926	0.945	NA	1.771	3.157	0.589	NA	NA	1.029	0.84	2.141	2.199	
1925	0.352	NA	1.762	0.691	1.325	NA	NA	0.435	1.003	NA	1.315	
1924	1.839	NA	0.508	1.201	0.539	NA	NA	1.192	0.608	NA	1.457	
1923	2.09	NA	0.616	0.678	3.627	NA	NA	NA	0.882	NA	1.672	
1922	0.706	NA	1.118	0.735	0.964	NA	NA	NA	0.634	NA	1.426	
1921	0.453	NA	0.468	1.242	0.8	NA	NA	NA	0.872	NA	1.46	

1920	1.38	NA	0.497	0.727	1.191	NA	NA	NA	0.486	NA	1.674	
1919	1.15	NA	0.432	1.145	1.451	NA	NA	NA	0.458	NA	1.34	
1918	0.397	NA	0.398	1.617	3.51	NA	NA	NA	0.686	NA	1.435	
1917	0.597	NA	0.65	2.254	1.3	NA	NA	NA	0.978	NA	1.825	
1916	1.061	NA	0.373	2.083	1.299	NA	NA	NA	0.582	NA	1.619	
1915	0.769	NA	1.365	2.996	3.679	NA	NA	NA	0.525	NA	NA	
1914	0.798	NA	NA	2.894	1.279	NA	NA	NA	0.582	NA	NA	
1913	NA	NA	NA	5.451	5.78	NA	NA	NA	0.223	NA	NA	
1912	NA	NA	NA	2.195	1.523	NA	NA	NA	0.318	NA	NA	
1911	NA	NA	NA	2.867	NA	NA	NA	NA	0.204	NA	NA	
1910	NA	NA	NA	2.663	NA	NA	NA	NA	0.202	NA	NA	
1909	NA	NA	NA	2.376	NA	NA	NA	NA	0.236	NA	NA	
1908	NA	NA	NA	2.258	NA	NA	NA	NA	0.328	NA	NA	
1907	NA	NA	NA	1.283	NA	NA	NA	NA	0.299	NA	NA	
1906	NA	NA	NA	1.881	NA	NA	NA	NA	0.321	NA	NA	
1905	NA	NA	NA	1.761	NA	NA	NA	NA	0.322	NA	NA	
1904	NA	NA	NA	1.773	NA	NA	NA	NA	0.25	NA	NA	
1903	NA	NA	NA	1.267	NA	NA	NA	NA	0.248	NA	NA	
1902	NA	NA	NA	0.526	NA	NA	NA	NA	0.184	NA	NA	
1901	NA	NA	NA	1.934	NA	NA	NA	NA	0.365	NA	NA	
1900	NA	NA	NA	1.916	NA	NA	NA	NA	NA	NA	NA	
1899	NA	NA	NA	1.558	NA	NA	NA	NA	NA	NA	NA	
1898	NA	NA	NA	1.648	NA	NA	NA	NA	NA	NA	NA	