

RATIO OF ROUGH CONES TO CLEAN SEED

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In Volume 41 (1943) of the Journal of Forestry, Hamilton reported on five year TVA records of clean seed yield. The following table shows similar records for the 1940-52 period on four species of pine. The previous period's averages are shown with those of this period for comparison.

In each case, yields for the latest period are higher than the 1935-39 averages. Increases are striking in loblolly, white and Virginia; in shortleaf the increase is negligible.

As Hamilton pointed out, CCC camps collected all seed during the 1935-39 period. He concluded that various CCC regulatory factors, such as travel limitations and safety regulations, were responsible for clean seed ratios being lower than those given in most texts. Since private collectors procured the bulk of our 1940-52 seed, the increased clean seed ratios give additional validity to Hamilton's conclusion.

The last period averages fall within the clean seed yield ranges reported in the Woody-Plant Seed Manual, U.S. D. A. Miscellaneous Publication No. 654. However, in no case, even using single year yields, have we approached the top limits given there. For instance, the Manual gives top shortleaf yield as 1.5 pounds per bushel, while our highest (in 1943) was 1.0 pound. In Loblolly our highest (also in 1943) was

1.1, against the Manual's high of 1.5 pounds. In white, the comparison is our high of 0.93 (in 1952) against the reported 1.75. Our 1940-52 averages for these three species are also less than the average of the ranges reported in the Manual, In loblolly and white, this might be attributed to the fact that our collection is principally from the fringe areas of the natural range of the species.

Seed Extraction Record
TVA Nurseries
1940 to 1952

Year	Shortleaf Pine		Loblolly Pine		White Pine		Virginia Pine	
	Bu.	Lb.	Bu.	Lb.	Bu.	Lb.	Bu.	Lb.
1940	118	14	303	41	956	642	-	-
1941	1,085	528	-	-	-	-	-	-
1942	-	-	-	-	-	-	-	-
1943	601	604	292	335	-	-	512	493
1944	-	-	203	191	103	14	5	3
1945	-	-	-	-	-	-	51	9
1946	228	207	3,448	3,430	735	403	37	20
1947	677	148	1,196	786	1,095	973	-	-
1948	176	48	981	387	-	-	24	4
1949	13	5	587	609	1,322	850	-	-
1950	348	183	4,636	4,414	1,531	1,207	-	-
1951	313	162	5,174	3,974	-	-	-	-
1952	317	81	8,751	5,847	1,553	1,446	-	-
Total	3,876	1,980	25,571	20,014	7,295	5,535	629	529
Pounds of clean seed per bushel of cones								
<u>1940 to 1952 average</u>								
	.51		.78		.76		.84	
<u>1935 to 1939 average</u>								
	.47		.38		.47		.33	