

Conservation Reserve Program tree planting
in the northeastern United States
1990 update

Ronald P. OVERTON
Regeneration Specialist, USDA Forest Service
Northeastern Area, State and Private Forestry
St. Paul, Minnesota, U.S.A.

Abstract

In 1989, the Conservation Reserve Program became the largest land retirement program in U.S. history. At the end of the 9th sign-up period, a total of 33.9 million acres of farm land had been enrolled for withdrawal from agricultural production (U.S. Department of Agriculture, 1990), exceeding the 28.7 million acres in the Soil Bank program in the 1960's. About 6.4 percent of the land enrolled in the Conservation Reserve Program (CRP), or 2.18 million acres, is being planted to trees. This gives the CRP the greatest 5-year acreage of any federal tree planting program, including the Soil Bank (2.0 million acres), the CCC tree planting program (1.4 million acres), and the National Forest System (1.5 million acres). This paper summarizes the CRP tree planting program, with special emphasis on the 20-state area of the northeastern U.S.

Résumé

Les plantations du Conservation Reserve Program dans le nord-est des Etats-Unis en 1990.
En 1989, le Conservation Reserve Program (programme de reserves de conservation) est devenu le plus gros programme de conservation des terres dans l'histoire des Etats-Unis. A la fin de la 9^e periode d'entente, un total de 13,7 millions d'hectares de terre agricole avaient ete inscrit pour etre soustrait a la production agricole (U.S. Dept. Agriculture 1990), dépassant de 11,6 millions d'hectares le programme de la Soil Bank des annees 1960. Pres de 6,4 p. 100 des terres inscrites au programme, soit 882 220 hectares, sort en cours de reboisement. Pour le C.R.P., il s'agit de la plus grande &endue quinquennale de tousles programmes federaux de reboisement, qui comprennent la Soil Bank (plus de 800 000 hectares), le programme de reboisement du CCC (567 000 hectares) et le système des Forets nationales (600 000 hectares). Cette communication resume le programme de plantation du C.R.P. en mettant l'accent sur les 20 Etats du nord-est des Etats-Unis.

Program summary

The Conservation Reserve Program was established under the Food Security Act of 1985, more commonly known as the 1985 Farm Bill. The primary role of the CRP is to reduce water and wind erosion on the nation's most highly erodible and fragile croplands. Other goals of the program are to:

1. Protect long-term capability to produce food and fiber.
2. Reduce sedimentation.
3. Improve water quality.
4. Create better habitats for fish and wildlife.
5. Curb production of surplus commodities.
6. Provide needed income support for farmers.

The CRP is a voluntary program that places qualifying land into permanent, soil conserving covers such as grass and trees for a ten-year contract period (payment per acre on a bid basis). Farmers in the program must maintain the conservation cover at their own expense and may not use the land for commercial purposes. However, leasing the land for hunting, fishing, and some other recreational uses is permitted. Under emergency conditions such as drought, some provisions may be made to harvest the cover for livestock forage. Changes were made in the program in 1988 to encourage the enrollment of filter (buffer) strips along streams and other waterways and to promote additional tree planting. Cropped wetland acreage was allowed starting with 8th sign-up in 1989.

The CRP is targeted to enroll 40 to 45 million acres of cropland. Reaching that level would remove over 10% of the nation's cropland from production and should reduce overall soil erosion by 850 million tons of soil per year.

Program accomplishments

National

Farmers began to submit bids for CRP enrollment in March 1986. Over 33.9 million acres had been enrolled by the end of the 9th sign-up in August, 1989. Half (51.7%) of the acreage enrolled in the CRP is in the western U.S., with much of that in the Great Plains States; about one-quarter (25.9%) is in the southeastern U.S., and about one-quarter (22.3%) is in the northeastern U.S.

Table 1. Summary of CRP Tree Planting Acreage in the Northeastern Area (NA) by State and Region.

State/Region	CRP Land Accepted for Tree Planting									TOTAL FOR STATE/REGION		
	1st Sign-up (Acres)	2nd Sign-up (Acres)	3rd Sign-up (Acres)	4th Sign-up (Acres)	5th Sign-up (Acres)	6th Sign-up (Acres)	7th Sign-up (Acres)	8th Sign-up (Acres)	9th Sign-up (Acres)	(Acres)	(% of NA Total)	
NEW ENGLAND												
Connecticut	0	0	0	0	0	0	10	0	0	10	0.01	
Maine	9	142	195	348	531	469	519	264	65	2,542	1.52	
Massachusetts	0	0	0	10	0	0	0	0	0	10	0.01	
New Hampshire	0	0	0	0	0	0	0	0	0	0	0.00	
Rhode Island	0	0	0	0	0	0	0	0	0	0	0.00	
Vermont	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL New England	9	142	195	358	531	469	529	264	65	2,562	1.53	
MID ATLANTIC												
Delaware	0	0	0	0	0	116	5	52	0	173	0.10	
Maryland	5	6	9	251	182	389	99	190	192	1,323	0.79	
New Jersey	0	0	0	0	0	0	0	5	0	5	0.00	
New York	199	444	127	614	451	295	216	259	192	2,797	1.67	
Pennsylvania	40	159	474	327	84	535	181	136	191	2,127	1.27	
West Virginia	0	16	0	0	13	0	5	0	6	40	0.02	
TOTAL Mid Atlantic	244	625	610	1,192	730	1,335	506	642	581	6,465	3.85	
CENTRAL STATES												
Illinois	678	527	421	3,283	819	2,736	1,859	5,729	6,509	22,561	13.45	
Indiana	168	346	447	1,444	927	1,343	1,001	1,872	2,149	9,697	5.78	
Iowa	693	817	989	2,728	412	1,284	865	1,865	1,274	10,927	6.51	
Missouri	283	364	329	1,430	168	1,610	348	3,609	2,371	10,512	6.27	
Ohio	132	456	578	1,923	1,126	1,581	1,120	1,001	1,306	9,223	5.50	
TOTAL Central States	1,954	2,510	2,764	10,808	3,452	8,554	5,193	14,076	13,609	62,920	37.50	
LAKE STATES												
Michigan	253	228	771	2,024	595	2,606	1,400	1,039	109	9,025	5.38	
Minnesota	2,083	3,219	5,622	12,315	4,138	5,312	3,434	3,586	3,290	42,999	25.63	
Wisconsin	1,830	2,401	2,016	8,571	5,656	9,087	5,054	3,746	5,434	43,795	26.10	
TOTAL Lake States	4,166	5,848	8,409	22,910	10,389	17,005	9,888	8,371	8,833	95,819	57.11	
SIGN-UP TOTAL												
(Acres)	6,373	9,125	11,978	35,268	15,102	27,363	16,116	23,353	23,088			
(% of NA Total)	3.80	5.44	7.14	21.02	9.00	16.31	9.61	13.92	13.76			
NORTHEASTERN AREA TOTAL =										167,766 A.		

Of the 2.18 million acres of enrolled land planted to trees, 91.5% (1.99 million acres) are located in the southeastern U.S. An additional 7.7% (167,766 acres) are in the northeastern U.S., and 0.8% (17,954 acres) (0.8%) are in the western U.S. Plantings in the southeast are made up almost entirely of southern pines, while both hardwoods and conifers are used in the northeast.

The large regional differences in the proportion of CRP acreage planted to trees are primarily due to differences in the type of land being enrolled in the program and in the strength of regional markets for small timber. In the West, CRP acreage is primarily in prairie areas that are too arid to support trees. In the Northeast, the majority of eligible CRP land is in the Lake States and Central States, and the western states in these regions also contain arid prairie areas. In addition, in most of the Central States, the lack of markets for short rotation forest products, e.g., pulpwood, reduces landowner interest in tree planting. The largest concentrations of tree planting in the Northeast have been in the Lake States, where eligible land borders large forested regions that have good markets for forest products. The Southeast's large tree planting program is due to the fact that much of the CRP acreage there is within the commercial range of the southern pines, and a strong pulpwood market exists throughout the region.

CRP Tree Planting in the Northeastern U.S.

State and regional CRP tree planting acreage is summarized in Table 1. Of the 167,766 acres planted to trees in the area, only about 9,027 acres (5.4%) were planted in the New England and Mid Atlantic States. This lack of tree planting is largely a reflection of the smaller amount of eligible agricultural land in these regions.

The eight states in the Central and Lake States regions account for 95% of the CRP tree planting in the Northeast. In these regions, Wisconsin and Minnesota each have about 26% of the total acreage, Illinois has about 13%, and the remaining five states each have about 5-7% of the acreage.

The fourth sign-up, in February, 1987, resulted in the largest enrollment (35,268 acres) for tree planting in the area as a whole. However, the eighth sign-up, in

February, 1989, resulted in the largest enrollment (14,076 acres) for the Central States. The eighth and ninth sign-ups were also the only ones where the acreage enrolled in the Central States exceeded that in the Lake States. Much of the land enrolled for tree planting in the Central States in these two sign-ups was bottomland subject to scour erosion. This land had not been eligible for the CRP until regulations were amended in 1988.

State nurseries in the Central and Lake States increased production to provide seedlings for CRP tree planting programs. However, seedling shortages developed for some species and in some states at the beginning of the program as a result of the increase in demand. The shortages were most severe in Illinois, but also occurred in Iowa and Wisconsin. Among the hardwoods, black walnut and red oak were in most demand, and poor oak seed crops limited seedling production in many states.

A number of actions were used to alleviate seedling shortages, including: (1) planting fewer trees per acre, (2) requiring mixed plantings to stretch the supply of scarce species, (3) increasing the time period for establishing CRP plantations, (4) contracting with private nurseries for planting stock, (5) increasing the cost share amounts for planting stock purchased from private nurseries, and (6) increasing production in State nurseries, where possible. As a result, seedling supplies for the CRP are now adequate throughout most of the northeastern U.S. Surveys of CRP tree plantings in the Central and Lake States were conducted by the USDA Forest Service and State forestry agencies in five states in 1988 and in four states in 1989. The results of these surveys can be summarized as follows:

- About 80% of seedlings in new plantings were properly planted, i.e., tightly packed, proper depth, no J- or L-rooting, culls, etc.
- The most common planting error was shallow planting. This was especially noticed on hardwoods, where large tap roots made it impossible to J-root trees when planting holes were not deep enough.
- Inadequate weed control was judged to be the most serious threat to survival and establishment of CRP plantations throughout the area. Although management plans prescribe weed control, many landowners fail to follow these prescriptions.

- First and second year plantations suffered severe losses due to drought in 1988, although hardwood seedlings appeared to be resprouting from the root collar in some areas. Final estimates of damage to CRP tree plantings from the 1988 drought have not been compiled for the Northeastern U.S.

Future CRP tree planting programs

Proposals for continuing the Conservation Reserve Program are now being developed for the 1990 Farm Bill. It appears that tree planting will continue to be an integral part of the program, and perhaps be even more strongly promoted, especially in light of the increasing concern over water quality and global warming. Some options being considered to increase tree planting include extending the length of rental contracts on tree plantings, expanding eligibility to include marginal pasture land, and reducing erosion requirements for enrolling land under tree planting practices.

Literature cited

U.S. DEPARTMENT OF AGRICULTURE. 1990. *ASCS contract data on the first nine Conservation Reserve Program signups*. U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Washington, D.C. 10 p.