

U. S. DEPARTMENT OF AGRICULTURE.

REPORT
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THE FORESTER

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PIKES PEAK FOREST RESERVE.

During the field season of 1904 three nurseries were established in the southern portion of the Pikes Peak Forest Reserve to furnish seedlings for planting on the fire-denuded slopes of that region. In the fall about one-fifth of an acre of seed beds was planted with seed of Engelmann spruce, blue spruce, Douglas spruce, limber pine, western yellow pine, and bristle-cone pine. Forty thousand western yellow pine and 10,000 Douglas spruce seedlings from the Government nursery at Halsey, Nebr., were planted on the mountain slopes near Clyde.

GILA RIVER FOREST RESERVE—FORT BAYARD MILITARY RESERVATION.

An examination of the adaptability of the Fort Bayard Military Reservation for forest planting, made in cooperation with the War Department in April, 1905, was followed by the selection and leasing of a nursery site at Stevens ranch, north of the military post, at the only point where the necessary water rights could be obtained. An acre of ground was prepared as a nursery, and seed beds with a productive capacity of 3,000,000 seedlings were sown. About 300 pounds of seed of western yellow pine were used. They were sown with a seed drill, at a cost of less than 5 cents per pound; hand sowing would cost about 50 cents.

BLACK HILLS FOREST RESERVE.

Reforestation work was begun in early June. On 32 acres western yellow pine seed was sown broadcast. An area of 8 acres was planted to seeds of the same species with a hand corn planter, improved for the purpose, and 30,000 western yellow pine and 10,000 red fir seedlings raised in the Dismal River Forest Reserve nursery were set up, 2,000 to the acre. The operations were in the vicinity of Custer Peak, near Roubaix, on the site of an old burn.

DISMAL RIVER FOREST RESERVE.

Created primarily as a tree-planting reserve, the Dismal River Forest Reserve was the first on which planting was begun, and is still the scene of the most extensive reserve planting directed by the Forest Service.

NURSERY WORK.—In September, 1904, a careful estimate based on sample-plot counts showed that the nursery stock at that time consisted of 990,000 western yellow pine, 1,119,000 jack pine, 7,800 red fir, and 50,000 white fir seedlings. Of these the western yellow pine, red fir, and white fir came through the winter with probably less than 5 per cent loss. The jack pine suffered a loss of about 75 per cent through winter killing and the attack of a fungus.

The cost of raising these seedlings to one year old, including cost of the seed and one-tenth of the cost of constructing the shade frames, amounted to not more than 85 cents per thousand. These seedlings, as well as the other trees, are prospering.

The area devoted to seed beds is now $2\frac{1}{2}$ acres. One-half of this area was sown to western yellow pine and jack pine this spring. The remaining $1\frac{1}{4}$ acres contain one-year-old seedlings of western yellow