



UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY.

as
FOREIGN SEED AND PLANT INTRODUCTION,

Washington, D. C., June 9, 1916.

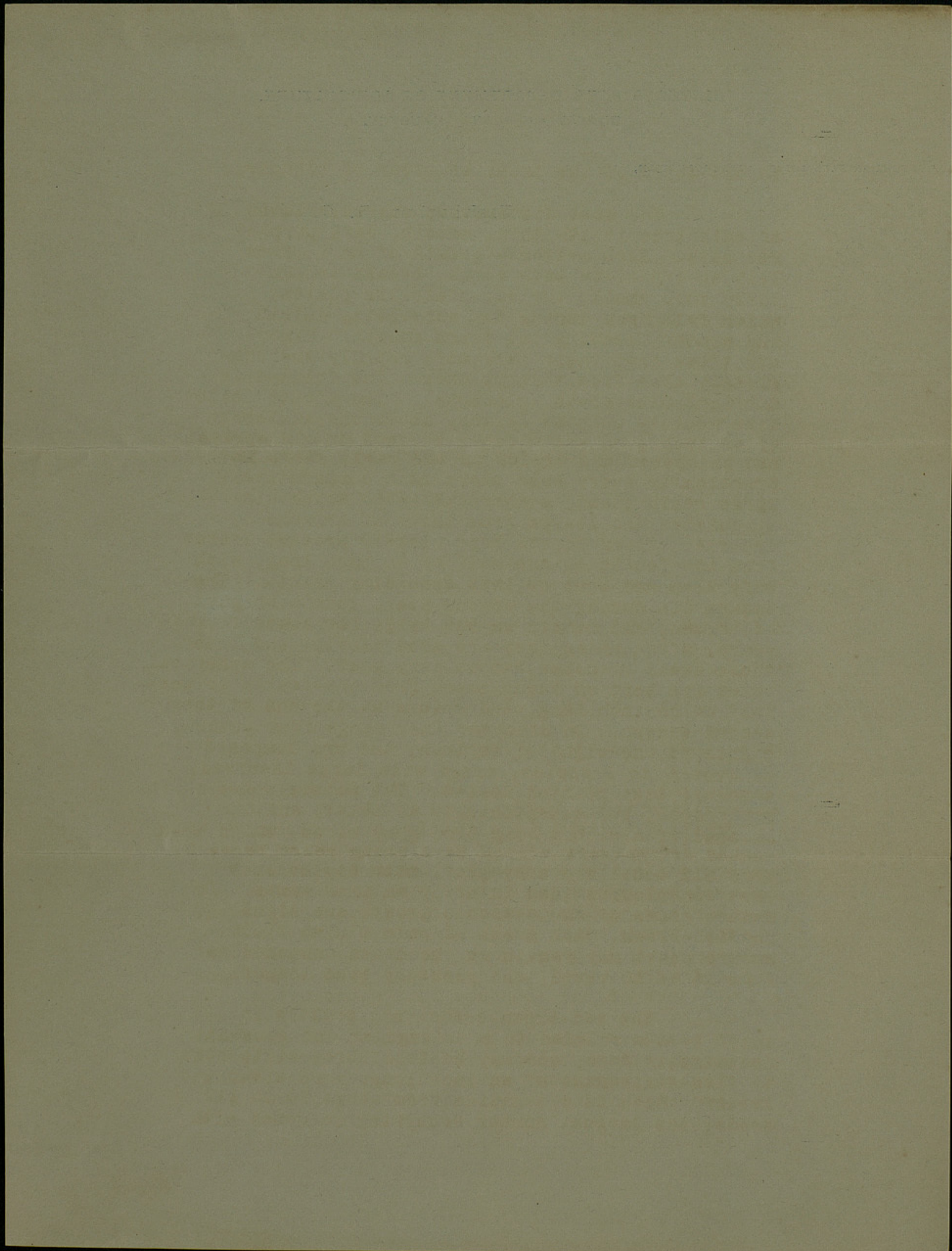
Director, Botanic Garden,
Coimbra, Portugal.

Dear Sir:

We have been able to secure a small quantity of seed of a recently discovered cypress that has been named *Cupressus glabra* Sudworth, Smooth Cypress. Knowing of your interest in such plants, we take pleasure in sending you, under separate cover, a packet of this seed.

Mr. George B. Sudworth, who discovered this plant, describes it as follows:

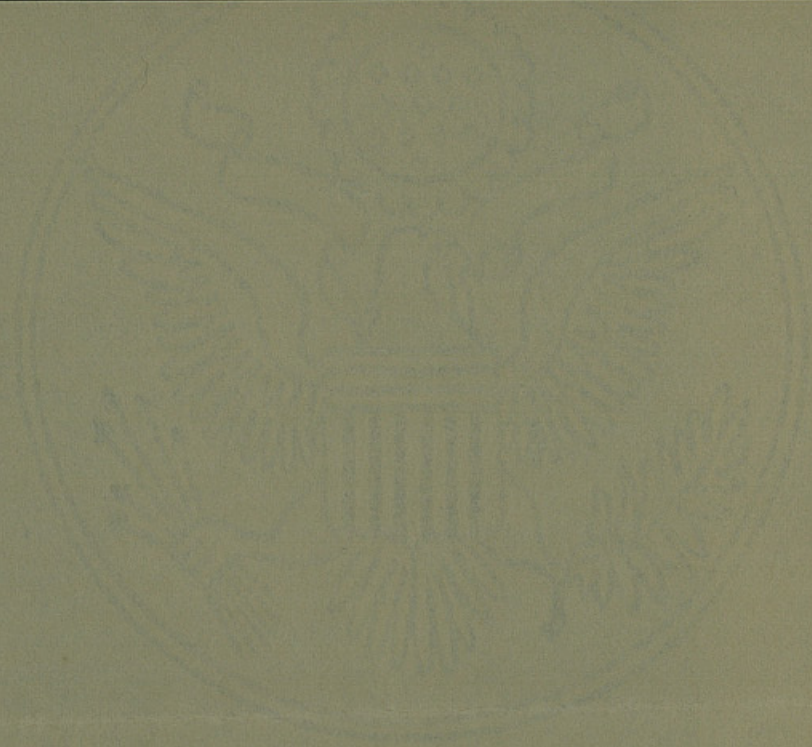
"In general appearance the foliage of the smooth cypress resembles that of the Arizona cypress (*Cupressus arizonica* Greene), though the former species can be distinguished from the latter by the compact, narrowly oval, or somewhat pyramidal crown. The branches of smooth cypress, particularly of younger trees, are strongly upright. Old trees grown in the open develop long, lower branches, which from their great weight are less upright than those of trees of the same age in a close stand. In height the trees range from 25 to 30 feet, and in diameter from 10 to 14 inches, though much larger trees probably exist. The trunk is slightly tapering, while the upper portion is sometimes divided into several branches, in this respect differing from the usual undivided stem of Arizona cypress. Only about one-fourth



to one-third of the trunk is clear of branches.

The most distinctive characteristic of this tree is its thin, smooth, dark purple-red bark. Each season's growth of bark, from 1/16 to 1/8 of an inch thick, breaks irregularly into small, curled, scalelike plates, which fall away during the succeeding autumn and winter, leaving the trunk smooth. Vigorous trees shed their bark more rapidly and completely than less thrifty ones. The foliage is a bright blue-green (glaucous). The minute scalelike acutely pointed leaves, about one-sixteenth of an inch long and closely pressed on old sprays, and thickened and keeled on the back, where in practically every case there is a comparatively large resin gland, a characteristic which distinguishes the leaves from those of Arizona cypress. Young shoots bear closely pressed leaves from one-fourth to one-half of an inch long, with very keen and more or less spreading points. The leaves die during the second year, turn a bright red-brown, and remain on the twigs for about four years, after which they are shed slowly, and later these small branches become ashy gray. The spherical cones are born on stout stems from one-fourth to one-half of an inch long, and mature at the end of the second season. In diameter they range from Seven-eighths to one-eighth of an inch, and are composed of from 6 to 8 scales, armed with large incurved, somewhat flat pointed bosses. The mature cones are smooth, but conspicuously wrinkled, and covered with with a deep blue-gray bloom, which when rubbed off reveals a rich dark-brown color beneath. Very old cones are ashy-gray, with bosses much less conspicuous than in newly matured cones. Immature cones of one season's growth are light reddish-brown, with areas of pale-bluish bloom. Mature cones may remain on the trees unopened for from 14 to 18 years, and possibly even longer.

The red-brown seeds vary greatly in shape from a rounded to a triangular and somewhat rectangular form, and may be from three-sixteenths to five-sixteenths of an inch long, more often the latter. Each cone contains from about 70 to 112 seeds, the largest number occurring in cones with



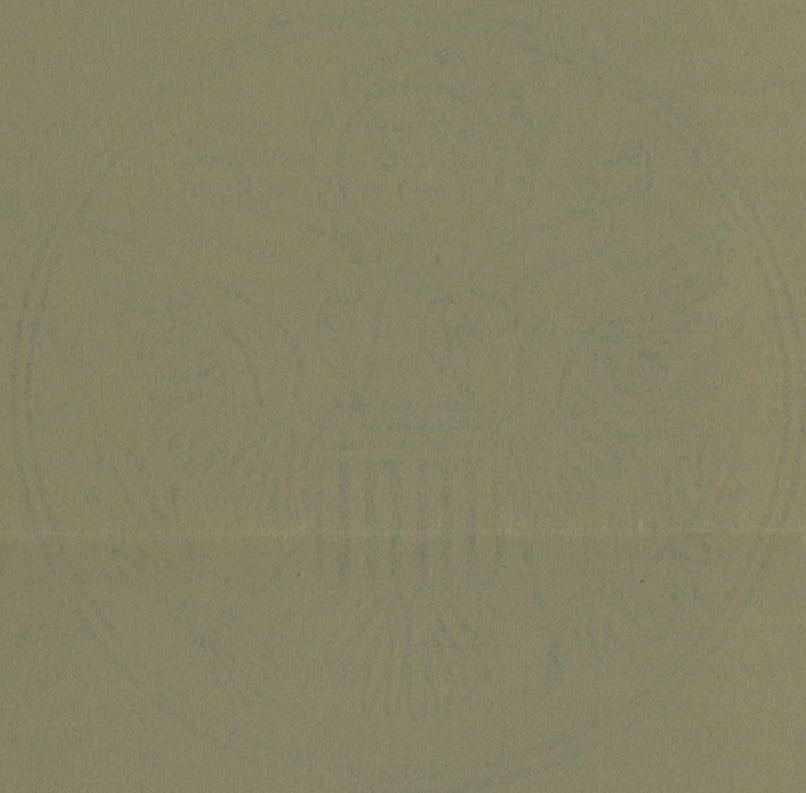
8 scales. The large size of the seeds at once distinguishes them from those of Arizona cypress, though in color and form the two are similar. Seed-leaves vary in number from 3 to 4.

The sapwood of smooth cypress is a pale straw-color and the heart-wood a very light brownish-yellow. Seasoned wood is hard, rather heavy, strong, and with very narrow rings of growth. As the case of Arizona cypress, the freshly cut, dry wood has a slightly cedar-like odor, which is less pronounced in green wood. Thoroughly seasoned wood is moderately durable in contact with the soil, fence posts lasting about 20 years, and corral poles 30 to 35 years. Cabins built of the logs 40 years ago are still in a good state of preservation.

The small size of the trees and the limited supply have confined the use of the wood mainly to local needs. It has been employed to a limited extent for fence posts, corral poles, and rough house logs, fuel, telephone poles, and mine props.

In the Verde River Canyon grove smooth cypress grows abundantly in gravelly and shaly soils on benches, gentle slopes, and low ridges at elevations between 3700 and 5500 feet. It is best developed in protected watered gulches and on the gentler slopes and benches where the soil is moist. At low elevations it is associated with *Pinus monophylla*, *Pinus edulis*, *Quercus chrysolepsis*, and *Rhus laurina*, while higher up it forms nearly pure stands. Little is known at present regarding the light requirements of smooth cypress during its early stages of growth, but in later life, judging from the greater density of its crown, this species should be as tolerant of shade, if not more so, than Arizona cypress.

Smooth cypress is a prolific seeder, usually producing cones every year. The fresh seed shows a moderately high percentage of germination, while the vitality of older seed probably declines rapidly after the fifth year.



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The extreme age attained by this species has not yet been determined, but it is probably as long lived as Arizona cypress. The largest trees found so far are at least 200 or 250 years old." (Bulletin No. 207, U. S. Department of Agriculture. The Cypress and Juniper Trees of the Rocky Mountain Region, P. 9.)

Yours very truly,

David Fairhead.

Agricultural Explorer in Charge.

