



Mr. Riegel in the Sylvania tree nursery, showing silver maples 3½ ft. to 4 ft. high. Seed planted July, 1929; transplanting May, 1930; photo taken Sept., 1930.

## Transplanting of "Volunteer" Trees False Economy

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I AM of the belief that no money is saved by the practice of obtaining "volunteer" trees from the woods and transplanting to the course. Nature is the greatest of adjusters; a forest "volunteer" conforms to the meagre nourishment and scant sunlight of its environment and the resulting structure is incapable of immediate and rapid assimilation when introduced to favorable conditions.

Compare this construction in the fight for food with the full fibred roots, stout stems and straight leader of the nursery tree; from top to bottom a big feeder, rapid and symmetrical grower. This is theory made to conform with my experience in using "volunteer" and nursery trees. Invariably the latter, though far smaller at the start, have surpassed the former in a few years.

For the most ambitiously inclined in the matter of foresting their course, a half-acre tree nursery should be amply sufficient and if the right thing is done at the right time, the cost so small as to be unnecessary of mention in the budget.

A half-acre will furnish at one time 6,000 trees for transplanting and allowing a 50 per cent mortality loss from seed to permanent location—which is high. You have a balance of 3,000 trees in permanent location and as these are placed where desired, no waste is encountered.

For the average course desiring to establish groves about their tees and greens,

leaving most of the rough clear for tractor mowing, a space 100x100 feet should be found sufficient. The difference of cost among the varying sizes of nurseries, however, is small and a market is usually found for surplus trees. The difference in cost of maintenance comes after the trees have been set in permanent location in the change from tractor to hand labor. If the transplanting is confined to areas normally maintained by hand labor, as about tees, greens and on hill-sides too steep for tractor mowing, the expense of maintenance should not be increased except to the extent of cultivation immediately about the young trees until they become established.

When the trees have reached a size sufficient to shade the areas about them you will find your maintenance cost to be even less as the turf under them will be thinner and grow slower.

Now is the time to plant oak, beech, hickory, chestnut, walnut, butternut, sycamore, buckeye, tulip, cucumber, hard maple, box elder, etc. Set the seeds in rows about 30 inches apart for convenient cultivation and about 3 inches apart in the row. Later you can fill the empty spaces in the row from sections germinating 100 per cent so as to make all spaced 6 to 8 inches apart. Plant seed from ½ to 2 inches deep according to size of seed and press soil firmly over them. Partial shade is beneficial rather than otherwise and a light soil better than a heavy one as seeds germinating late in spring will have difficulty in pushing through unless rains are frequent or the nursery is placed so that it may be watered.