

2nd January 1963

Mr. Percy C. Everett, Superintendent  
Rancho Santa Ana Botanic Garden  
1500 North College Avenue  
Claremont, California, U.S.A.

Dear Mr. Everett:

Since receiving your letter of 24th October, 1962, more progress has been made upon *Brodiaea volubilis*. Presently I have two pots going well. There are five shoots from right to left seed and ten shoots from left to right seed. These are about proportional to the number of seeds planted and represent approximately three percent germination. The shoots vary from just visible to over four inches high. No secondary leaves have appeared. Apparently there is no appreciable difference in the fertility of seed from the two types of vine. The earth I use is slightly sandy and I keep the surface moist at all times by adding about 0.05" water each day. The plants are grown in partial shade because the tips of shoots scorch easily.

The literature available here is very meager under title of *Brodiaea volubilis*. However, I have found a picture and appreciable description under *Stropholirion Californicum*. I saw your plants during the nearly mature leafless stage and guessed them to be a cactus. Now I find it is a lily. Also I learn it takes several years to bring to the flowering stage from seed. Also it seems that the bulbs produce offsets which soon flower.

The purpose of my experiment is to learn whether the direction of twist of the scape is fixed and inherited like beans and bindweed; or whether it is random and non-inherited like *Cocos nucifera*. At the time, I thought the twisting stage could be arrived at from seed in one year. However, I now find, raising the plants in this manner to be an extended and laborious business. I am wondering about the possibility of securing from your establishment, or the native region nearby, a dozen or so small bulbs to hasten the experiment and obtain some preliminary results. You probably will not know the direction of twist of the scape from any given

bulb. However, I can start these off and note the details of what happens. The second year results from a given bulb will provide some initial evidence as to what may be expected from the seed experiment a few years in the future.

Your consideration and comments on this matter will be much appreciated by me. If any costs are involved, they will be defrayed from funds in New York.

I am,

Sincerely yours,

~~Grotr~~ *George Reber*