

**GR:NER**

**22nd January, 1963.**

**Mr. Noel Lethian, Editor,  
South Australian Naturalist,  
Botanic Gardens,  
ADLAIDE, S.A.**

**Dear Sir,**

**In accordance with your letter of the 18th, I  
have composed a short note to explain the reasons behind  
my request. This note and a copy of first reference is  
enclosed herewith.**

**Your assistance will be much appreciated.**

**Yours faithfully,**

**Greta Baker.**

## CIRCINATION IN PLANTS.

The direction of twist is strongly built into most plants such as beans. When the vine has its direction of twist mechanically reversed, it responds in various ways. The ratio : weight of dry beans divided by weight of shucks increases<sup>1</sup>. This phenomenon is most pronounced at top of vine<sup>2</sup>. The percentage of inverted color beans appears to increase. It would be desirable to check these results on a plant having the opposite direction of twist.

A few plants such as the coconut palm have non-inherited random twist<sup>3</sup>. The lilies *Stropholirion Californicum*<sup>4</sup> (*Erodiaea volubilis*), *Bowiea Volubilis*<sup>5</sup> and *Leasa Lateritia*<sup>6</sup> also exhibit random twist. Very little is known about them.

1. "Reversed Bean Vines", Grote Reber, Castanea, December 1960, page 122, Vol. 25.
2. Same, in the press 1963.
3. "Asymmetry and Yield in *Cocos nucifera* L.", T. A. Davis, Experimentia, Vol. 18, p. 321, 1962.
4. Observed at Santa Ana Botanical Garden, Claremont, California, 1959. See "Dictionary of Gardening", F. J. Chittenden.
5. Cassell's Popular Gardening, page 52.  
"Flowering Plants and Ferns", J. C. Willis, page 90.
6. "Strasburgers Textbook of Botany", page 343, also Willis, page 390.