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Stowell Avenue,
HOBART.

Professor Frank Kreith,
Mechanical Engineering Department,
University of Colorado,
BOULDER,
Colorado,
U.S.A.

Dear Professor Kreith,

Thank you for your letter of the 2nd. Enclosed are two reprints describing my studies on beans. Coriolis force has nothing to do with twining plants. Beans turn counter clockwise like right hand screw thread in both hemispheres. Hops turn clockwise like left hand screw thread in both hemispheres. They do not follow the sun. I've tried several (same) varieties of beans both here and at Green Bank with identical turning and have witnessed hops. All beans turn same way. All hops turn same way. The twining direction is strongly built into these plants.

I've seen *Brodiaea volubilis*. Some stalks turn clockwise and some turn counter clockwise from different bulbs.

I've grown *Asparagus asperagoides*. Some stalks turn one way, some the other. A few stalks reverse their direction one or more times voluntarily as they climb.

I've discovered an unknown plant on Flinders Island. A given stalk will turn a given direction throughout. However the secondary stalks often turn the opposite from primary stalk. Another change in direction can appear on tertiary stalks. This plant comes in male and female versions. The female is a poor climber and mostly scrambles.

I've talked to assorted botanists and read such material as I can find. No one knows why a vine twines. This seems a rather late day for such to be.

Thanks for your interest. There is plenty to be done.

Yours faithfully,

Grote Reber.

encl.

Sent Castanea & Jnl of Genetics.