tion between bulb size and leaf count (Figure 1), but also between bulb size and apex diameter (Figure 2). One hundred days later the number of leaves per stem was counted for each of five bulbs in each of five weight groups selected for evenness of maturity, i.e. having a stem terminating in a newly-formed inflorescence.

The number of leaves formed by apices of various diameter could thus be calculated. These values were positively and linearly correlated with original apex diameter (Figure 3).

It is logical to assume a cause and effect relationship between the highly correlated phenomena of apex diameter and rate of leaf formation. Such being the case, one hopes that the information in this paper will prove

groups were measured. The results in- ing the controlled development of the dicated not only a very high correla- apex and to those interested in influencing Easter lily leaf and flower production.



Fig. 2. A high degree of correlation helpful to those interested in explain- is shown between bulb and apex size.



100.

Fig. 3. Same as Figure 1, but showing additionally the newly established relationship between rate of leaf formation and apex size.

## A Novel Azalea

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The azalea has been used for many years for landscaping and for forcing. Both deciduous and evergreen types have been used for landscaping. The persistent-leaved types are used for forcing in the greenhouse and sold as pot plants. There are at least two kinds of persistent-leaved azaleas; one with all green leaves such as the Kurume azaleas, and the other with various degrees of white mottling in the leaves such as is found in the Belgian Indicas. These plants vary a great deal in this respect. Figure 1 shows a seedling plant with variegated leaves, varying from mottling on the left side to all white on the right side. This plant would not be considered for introduction as a cultivar, although it is unusual. The all white portion would soon burn or turn brown in the sun and be unattractive. Because there are thousands of cultivars of azaleas it is difficult to obtain something different and good enough to warrant introduction as a new cultivar.

In 1957 a seedling azalea produced a sport that appears to have value as a new cultivar. The seedling is from a cross of Hino-Crimson, a Kurume type and a seedling No. 528, a genetic dwarf. A narrow white band or margin surrounds most leaves (Fig. 2) of the sport. It is quite different from the flecking of the leaf (Fig. 1) which is commonly found in many cultivars. Fig. 1. Variegated leaves.

This sport appears to be the first marginated azalea plant to be found.

The dwarf shoot was cut from the plant, rooted and grown for propagation. This sport produced a very dense plant; it is but 11 inches high and 18 inches wide after eight years of good growing conditions in the greenhouse. The foliage is persistent and showy in all seasons of the year. Plants produce relatively small flowers one and one-half inches by one and

one-half inches, and are very floriferous, bearing many clusters with two of chlorophyll in the plant. The sport takes a longer time to root than the pure green plants. Under the same conto five flowers per cluster. The flower is hose-in-hose, a type that has one flower ins erted in another. The flower color is Spinel red, Ridgeway Plate XXVI 71 V RR, with filaments the same color as the petals. The stamens range in number from five to seven, usually seven, and are about onefourth inch shorter than the petals. The anthers are darker in color than





Fig. 2. Marginated leaves.

the filaments. The style is about as long as the filaments.

These marginated plants grow less than half as fast as the normal green plants from the original plant. This is probably due to the reduced amount of chlorophyll in the plant. The sport takes a longer time to root than the pure green plants. Under the same conditions the percentage of the rooted cuttings will probably be as much as 5% less than the green plants. Also, care must be exercised in selecting the cuttings from marginated plants as they may produce any of the type of leaves found in Figure 3. The margination is not completely fixed or stable and may always be unstable due to the nature of this variegation.

Although there has not been time enough to test its stability, this plant is being introduced because some nurserymen want the plant, even though they know it is not completely fixed or stable. Plants will not be available to the public for at least two years, and only through the cooperating nurserymen, not from the Department of Agriculture.

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Fig. 3. A: Typical marginated leaves; B, C, D: Leaves from atypical shoots on imarginated plants with varving amounts of green tissue from laver one.

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