

THE GROWTH RATE OF *POLYGONUM CUSPIDATUM*

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ABSTRACT

Measurements of the increase in stem length of plants of Mexican bamboo, *Polygonum cuspidatum*, indicated a growth rate of 1.84 inches (4.65 cm.) per day.

Polygonum cuspidatum, Sieb. & Zucc., commonly known as Mexican bamboo or Japanese knotweed, is a member of the Polygonaceae (Buckwheat family), which is native to Japan, but has been introduced into this country (Bailey, 1964). Its jointed stems may reach a height of 10 feet at maturity. This species is commonly cultivated as an ornamental in the Nashville, Tenn. area.

Impressed by the apparent rapidity of growth of these plants, the writer selected seven plants and measured

Table I. The height of Mexican bamboo plants as a function of time.

Plant	May 7	May 9	May 11	May 13	May 15	May 17
1	89 inches	94	96½	101	105	106
2	95	99	103	106	109	113
3	58	63	69½	78	81	82
4	32½	36	41	44	45	47
5	75	82	85	89	—	—*
6	30	34	39	46	47	49
7	40	46	48	52	54	55

* The stem of this plant was broken accidentally.

their heights at 2-day intervals from May 7 to May 17, 1970, inclusive. The results of these measurements are presented in the table:

The overall average increase during the period of observation was found to be 1.84 inches (4.65 cm.) per day. While a somewhat greater growth rate might have been observed if the observations had been started earlier, when the plants were smaller, it is believed, on the basis of subsequent observations, that most of the present measurements were made during the logarithmic phase of height growth.

The figures reported are not nearly as great as those reported for true bamboos (Gramineae, tribe Bambuseae) by Porterfield (1928) and others, and summarized by Arber (1934). These range from 25.4 to 91 cm per day. It is believed, however, that the present figures would compare favorably with those found for other dicotyledonous plants.

LITERATURE CITED

- Arber, Agnes 1934. *The Gramineae: A study of cereal, bamboo and grass.* xvii + 480 pp., Macmillan, New York.
- Bailey, L. H. 1964. *Manual of cultivated plants.* Revised edition. 1116 pp. Macmillan, New York.
- Porterfield, W. M., Jr. 1928. A study of the grand period of growth in bamboo. *Bull. Torrey Bot. Club* 55: 327-495.