THE EFFECT OF PLANT SPACING AND TIME OF HARVESTING ON FIBER YIELD OF RAMIE, *BOEHMERIA NIVEA* (L.) GAUD.¹

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From an extensive review of the literature dealing with the cultural practices employed in the production of ramie fiber, considerable divergence of opinion was found to exist as to the proper distance for setting root cuttings when establishing a new plantation, as well as the best time for harvesting the crop. On considering the numerous geographical locations and the accompanying wide variation in climatic and soil conditions under which this perennial crop is grown, however, the diversity in recommended planting distance and time of harvest is to be expected. For example, the growth response of ramie to a planting distance of 20 inches on a square, as practiced in Egypt (14),³ would be expected to be quite different from the response of plants set at this same distance in Tasmania, where, according to Wassermann (19), a distance is used of 35 inches between rows and 14 inches between plants in the row. Likewise, due to differences in length of the growing season in the two locations, the time of harvesting and the number of crops per year would be expected to be different.

In China (2, 16) it is reported that plants are spaced 2 to 4 feet apart on the square, while in the Philippines (9) they are spaced 24 inches in rows 32 inches apart. Campbell (4) in Florida recommended a distance of 4 feet between rows with 2 to 2½ feet between plants in the row. On the other hand, Carter and Horton (6), in Louisiana, recommended 3 feet between rows with plants 1 foot apart in the rows because, as they stated, this permitted larger yields in a shorter time.

In regard to time of harvest, it is reported that in Egypt (14) and in India (1) the stems are cut when they begin to turn brown at the base. Likewise, in the United States (6, 7, 11), and in Brazil (12), it is generally agreed that this is the time when the crop should be cut, but Dodge (11) added the criterion that the leaves must also be readily detached upon passing the hand down the stem. Chevalier (7) stated that the crop must be harvested before flowering in order to facilitate decortication and to obtain a fine fiber. Fagundes (12), in Brazil, also noted an association between morphological development and fiber quality together with ease of separation from the stem as he reported that stems which were either younger or older than the "brown" stage

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³Figures in parenthesis refer to "Literature Cited", p. 235.