（学位第３号様式）

学 位 論 文 要 旨

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題　目	Research on Stable Production and Logistics Systems of Production Areas Distant from Markets （遠隔園芸産地における安定生産および集出荷システムに関する研究）

Large-scale retailers manage the horticultural supply chain and require the production area to develop planned shipments to realize regular, fixed, and constant supply. In other production areas, although planned shipments have been addressed by cooperative sales organizations founded on community-based relationships, maintenance of a cooperative sales system is difficult because of the merging of agricultural cooperatives across wide areas and rapid shrinking of the labor force.

Therefore, it is difficult for the production area to construct a new system that can cope with precise planned shipping even when producers are widely spread. The chrysanthemum production area in Okinawa Prefecture is advanced and has responded early to the possible production problems under the current circumstances.

There are two main factors that need to be noted. The first is that precise planned shipping enables the planned shipment of uniform quality chrysanthemum even when producers are widely spread because of the island's nature. Second, chrysanthemums require elaborate planned shipping, as they are required to meet specific sales conditions, namely, fresh delivery, special day mass demand, and precise planning creates a stable supply in line with the specifications for red, white, and yellow blooms according to the desired form.

Therefore, this study examined the case of the Okinawa Floricultural Cooperative Association, which sells about 50% of the chrysanthemums produced in Okinawa, despite being a distant production area with widely dispersed producers. The empirical analysis revealed a possible production and logistic system.

The following three points are specifically clarified. First, it has become possible to ship large-lot chrysanthemums of the required quality by organizing members, widely dispersed, into regional production branches, and establishing a system based on this basic unit to manage the cropping of the whole production area.

Second, to cope with production instability caused by typhoons, we are constructing a seedling procurement system by establishing a subsidiary in Indonesia, and promoting the spread of growing facilities that can be introduced at low cost. This can ensure the resupply of seedlings quickly and reliably even if the nurseries of the association members are damaged, and can mitigate the storm damage incurred during the cultivation period, so that production and shipment are minimally affected.

Third, planned shipping is further refined by creating a collection and shipping system combining ship and air transportation. Based on low-cost, large-volume ship transport, high-speed flights can be used to transport varieties whose flowering time was later than planned to complete the three-color assortment at the point of arrival at the wholesale markets.