

**VARIATION OF MORPHOLOGICAL CHARACTERISTICS AMONG WILD
AND CULTIVATED TYPES OF *UNDARIA PINNATIFIDA* (HARV.) SUR. IN
NARUTO, SOUTHERN JAPAN**



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Wakame soup and salad

Production of *Undaria*

Japan: 100,000 ton (wet)

Korea: 240,000 ton (wet)

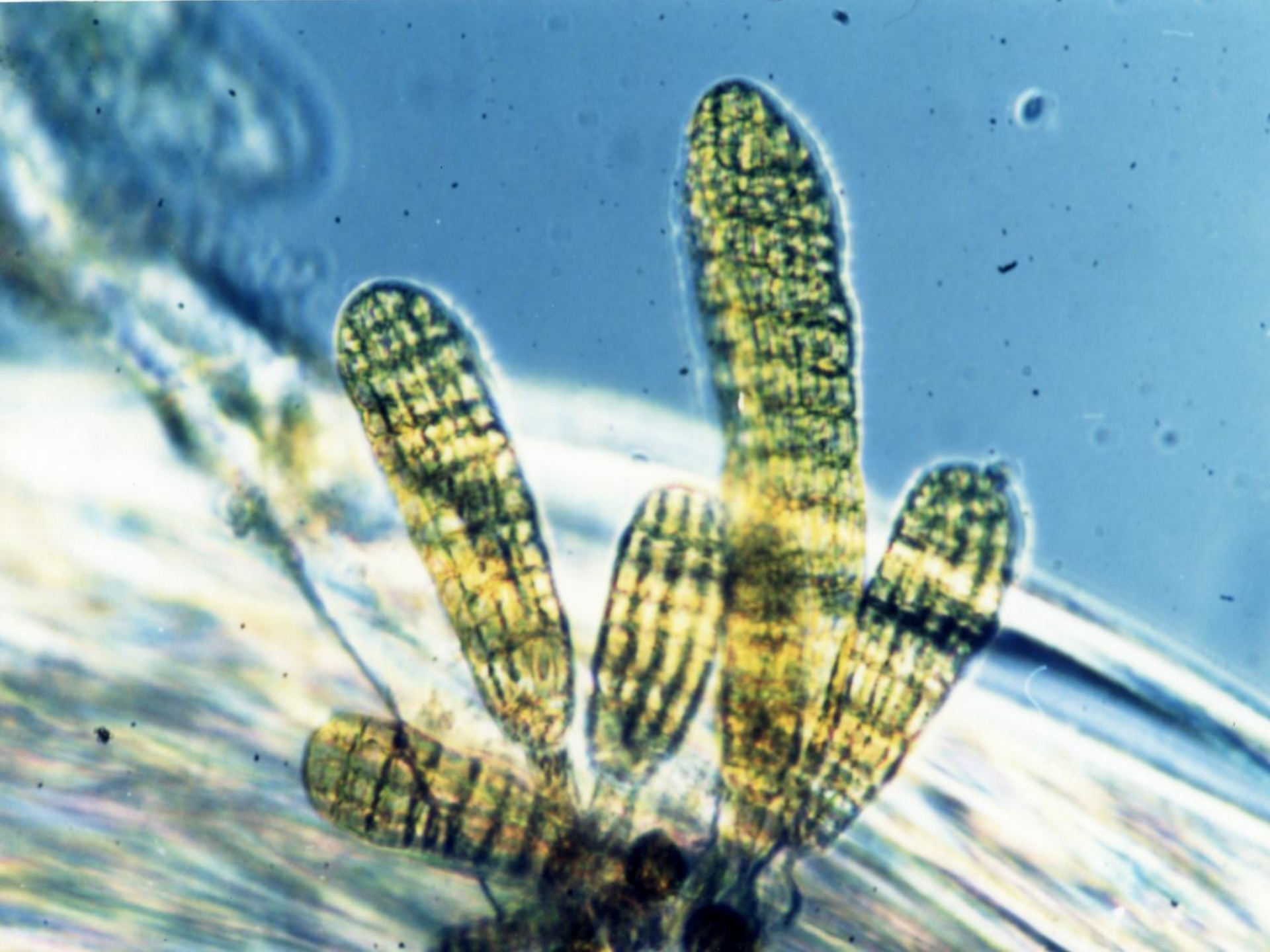
China: 200,000 ton (wet)

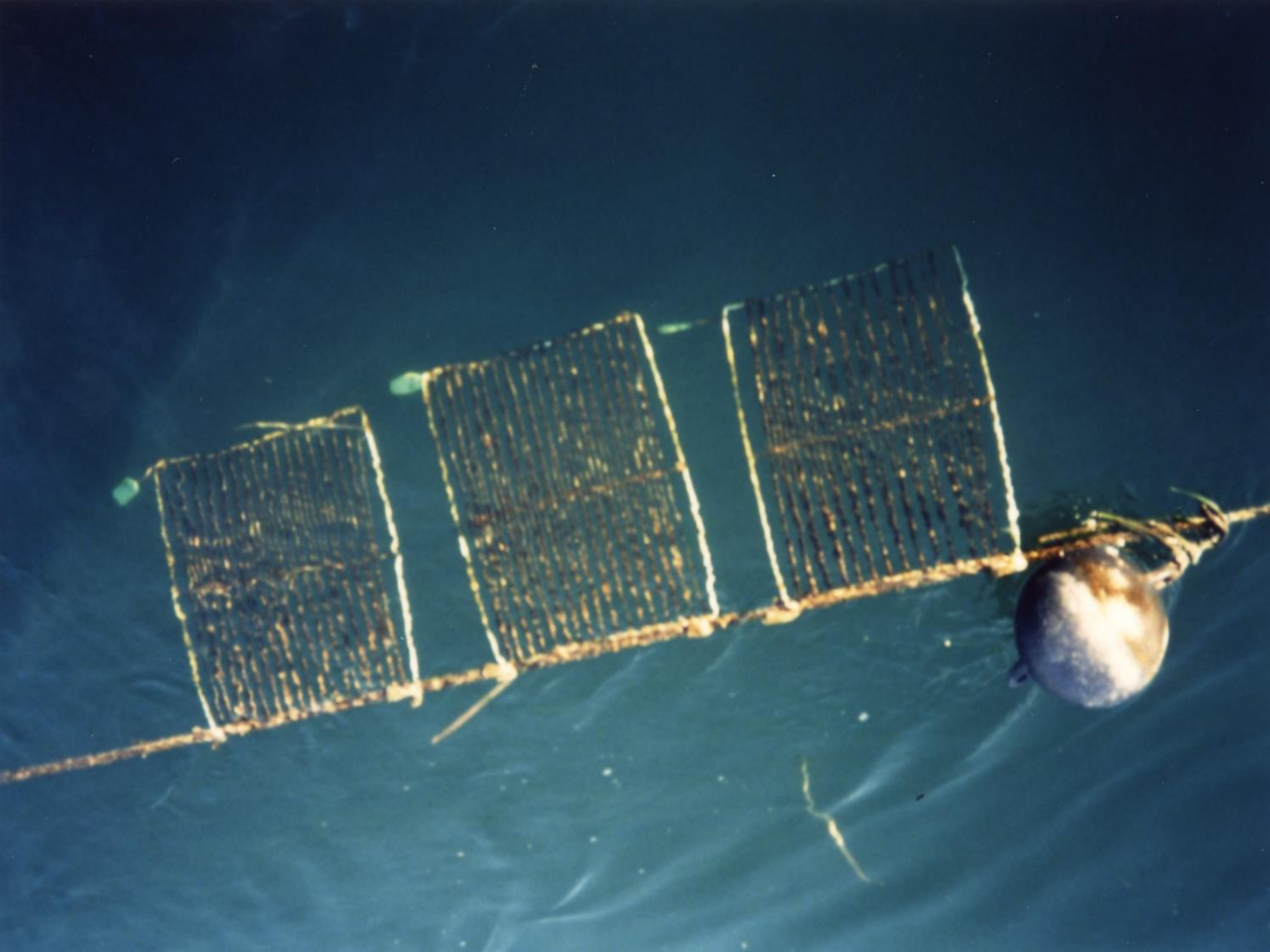
:Commercial cultivation

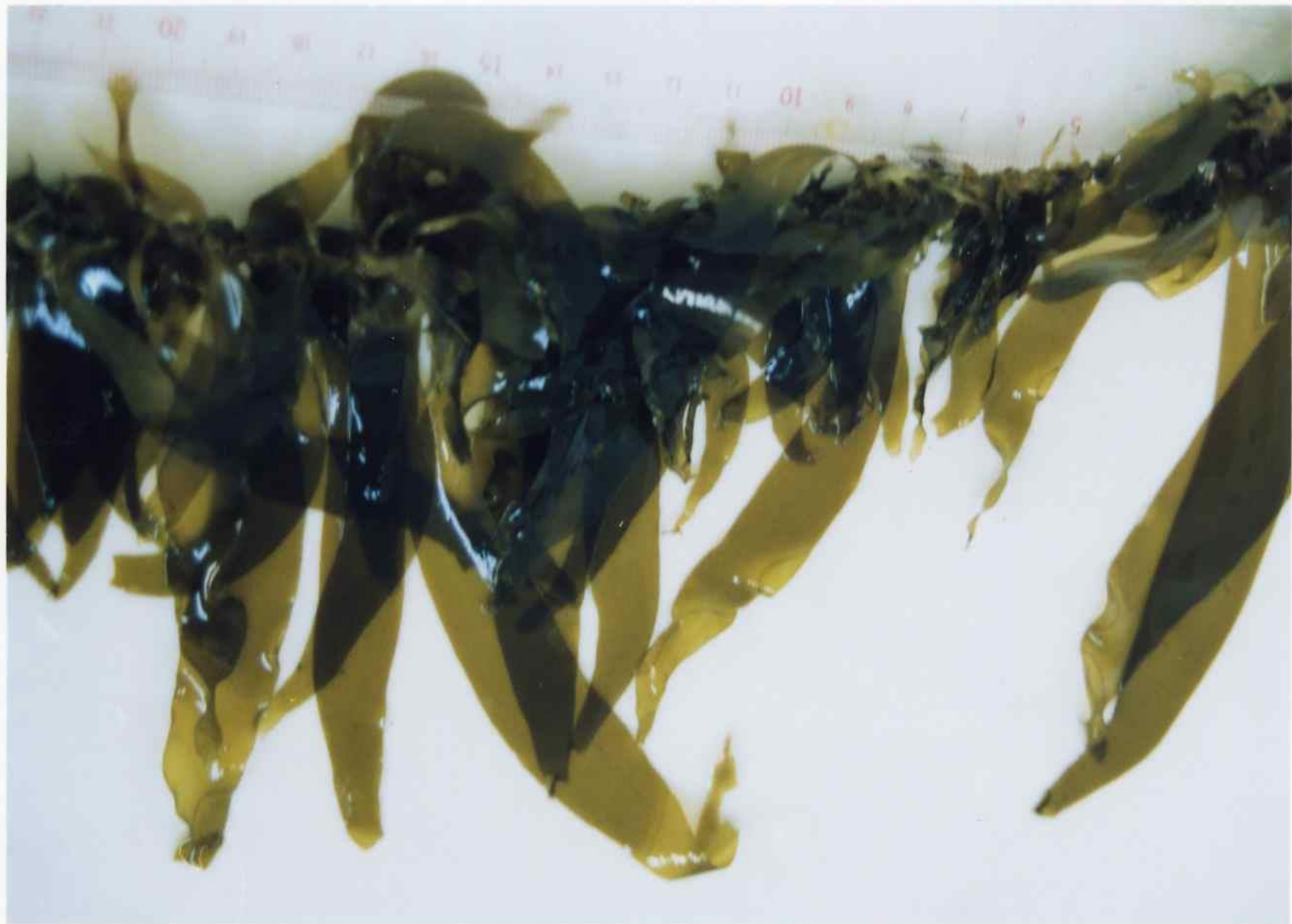
Since 1990

Subject

- 1. Cultivation technology is completed**
- 2. Improvement in the quality**
- 3. Improvement in the processing technology**









Juvenile fronds inserted between the strand of the main rope



***Undaria* cultivation ground by floating system
in Naruto**



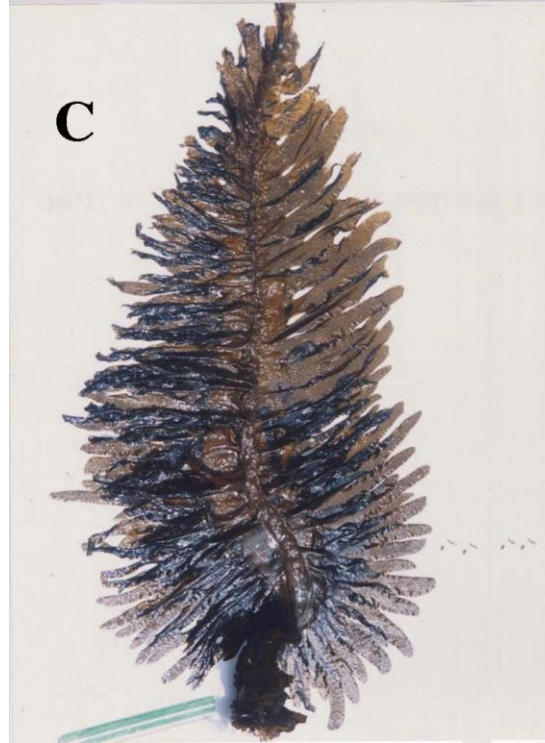
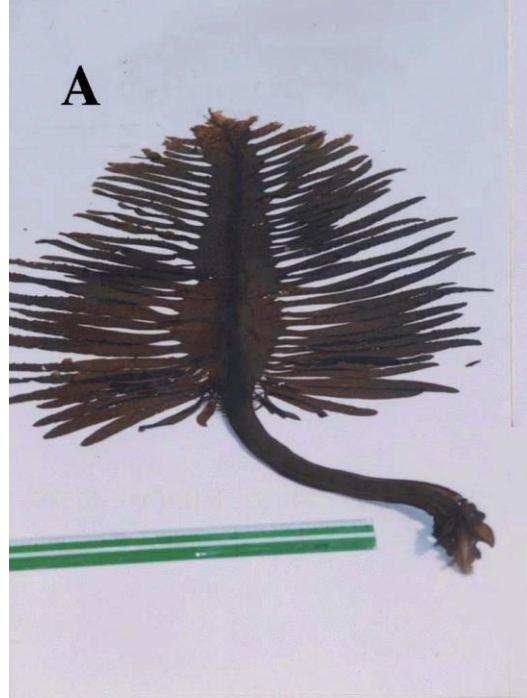


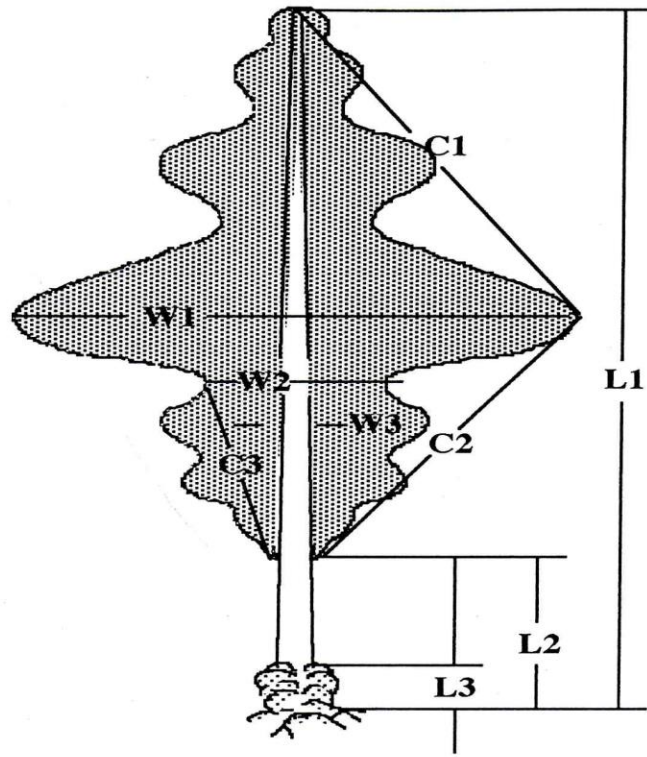


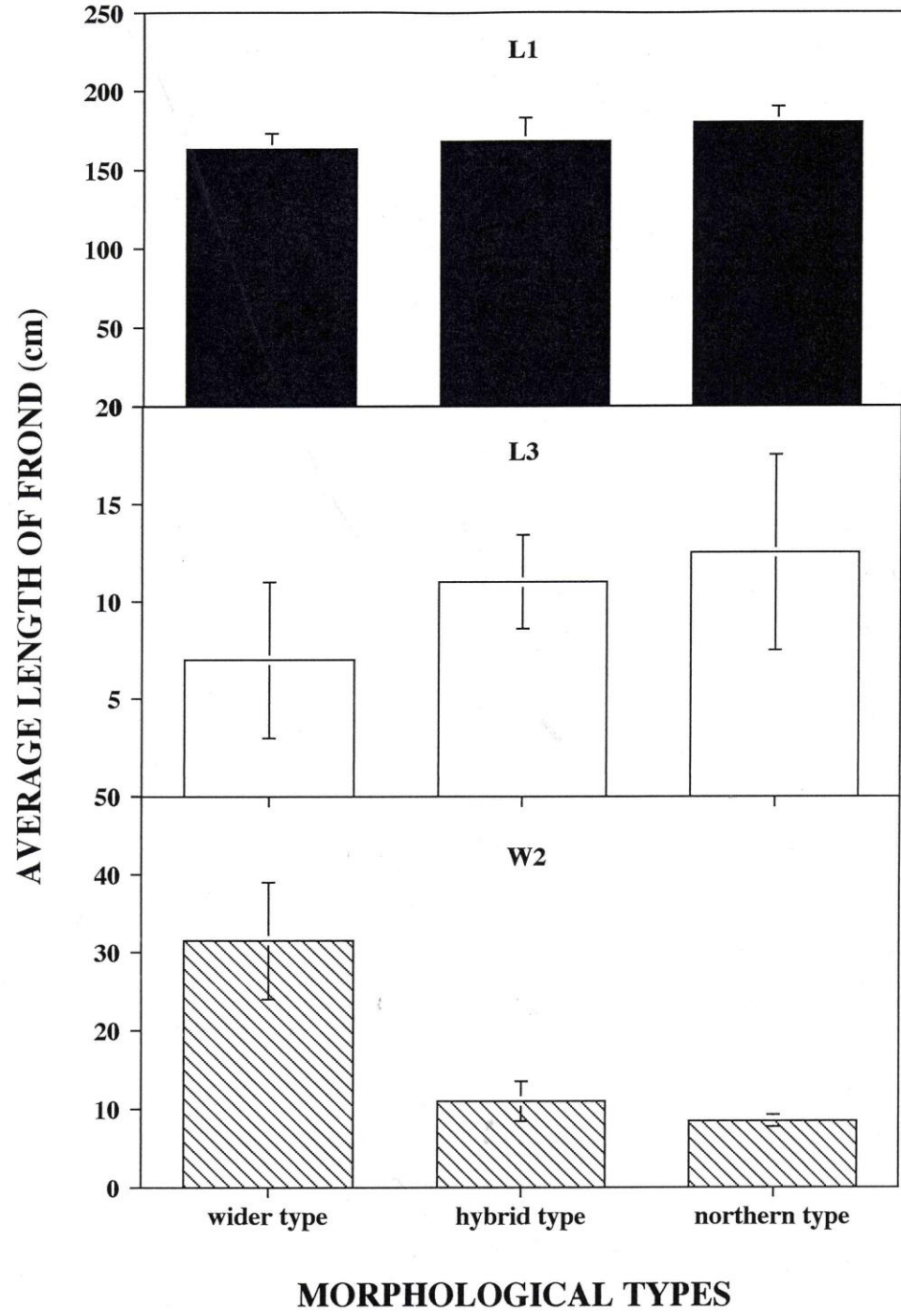


Harvesting method in China

photo by Sato







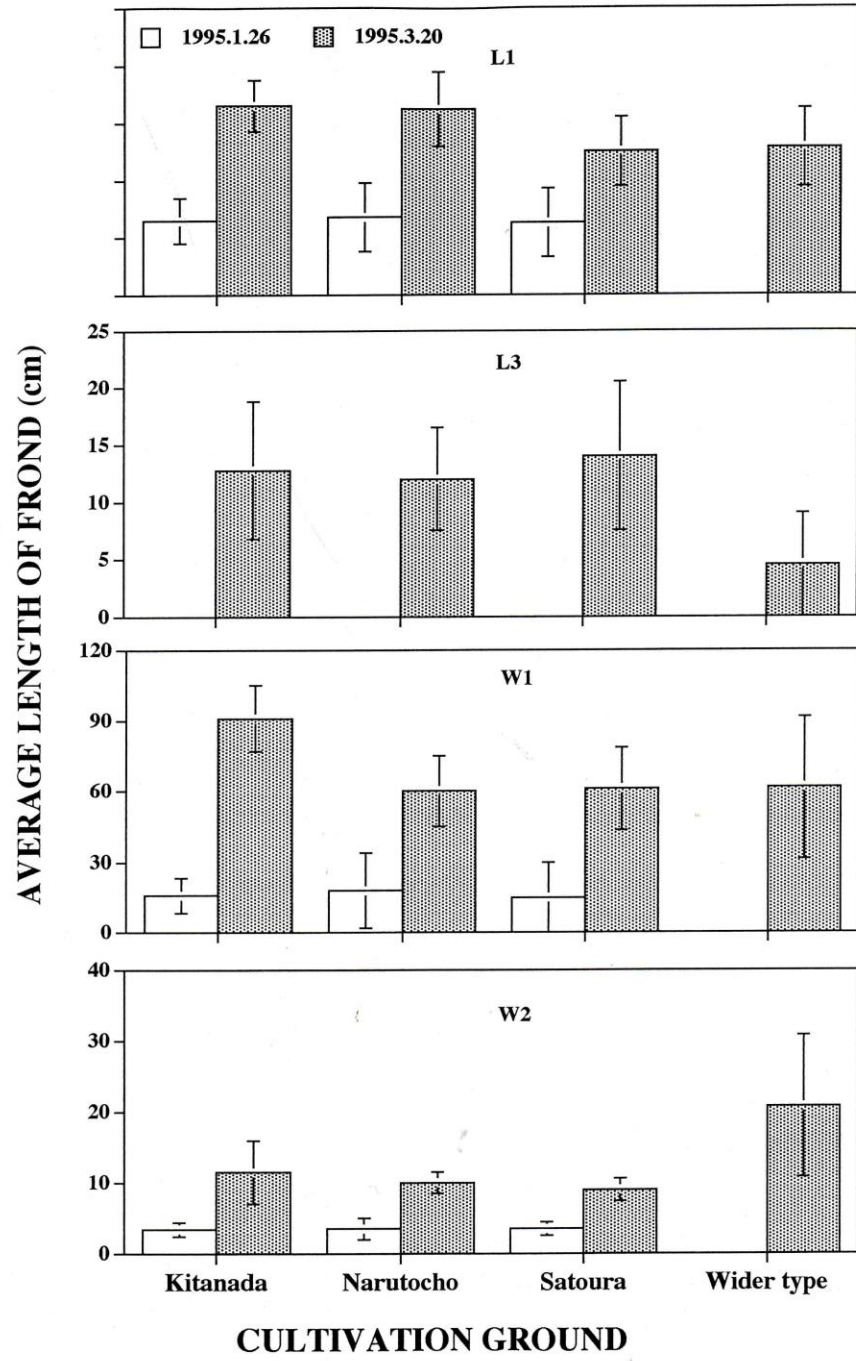
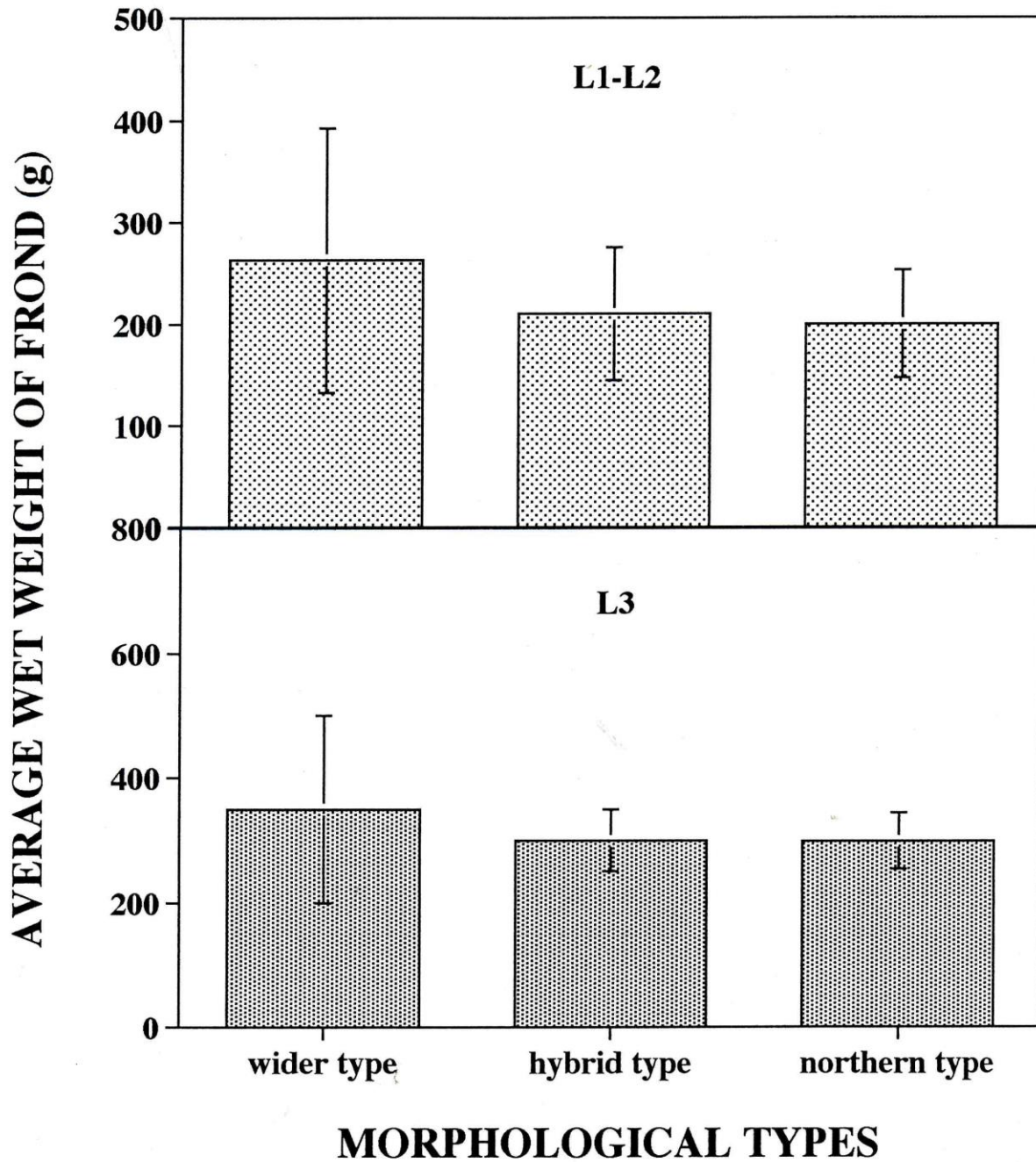
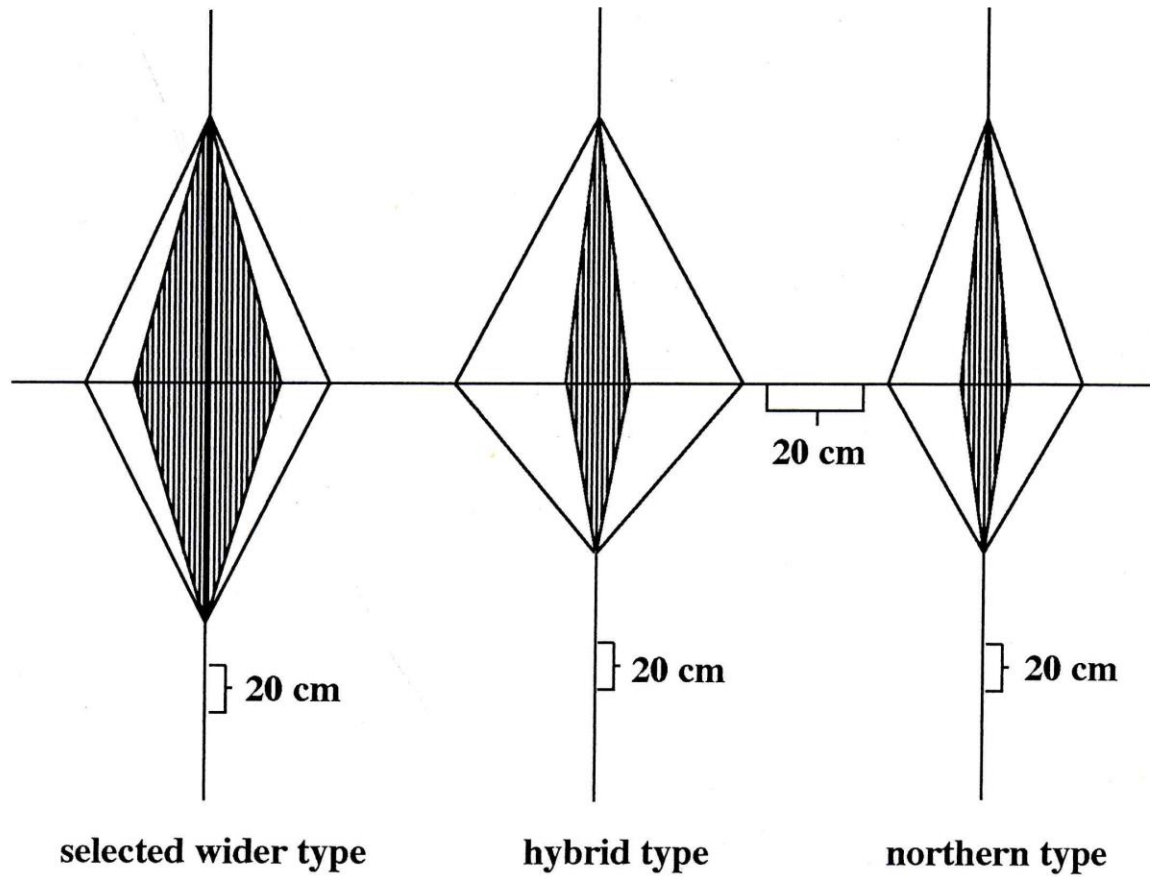


Fig 11







**THANK YOU FOR
ATTENTION**