

Eucheuma cultivation





- ***Eucheuma* salad**



Green type



Brown type

Kappaphycus alvarezii, main cultivation species-
Kappa carrageenan-

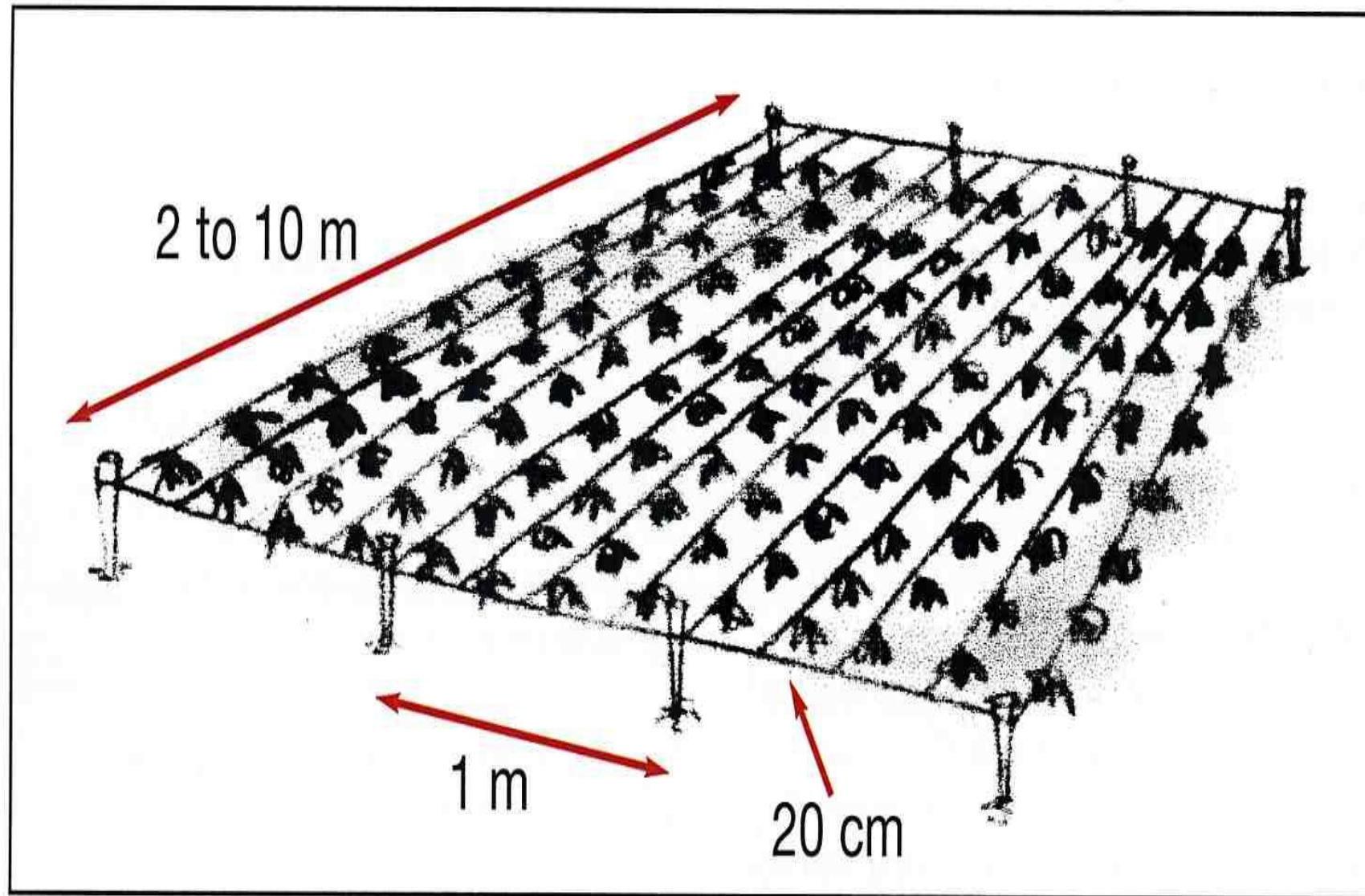


Figure 2.2 The newer style high density Off Bottom farm design with stakes still one meter apart but end lines are added allowing spacing of 20 cm between nylon lines. Again, nylon lines are 2 to 10 meters long and propagules are tied every 20 cm on the nylon lines.





Raft system made with bamboo



Seeding with family



Long line cultivation in Vietnam



Euchuema cultivation ground
in the water person

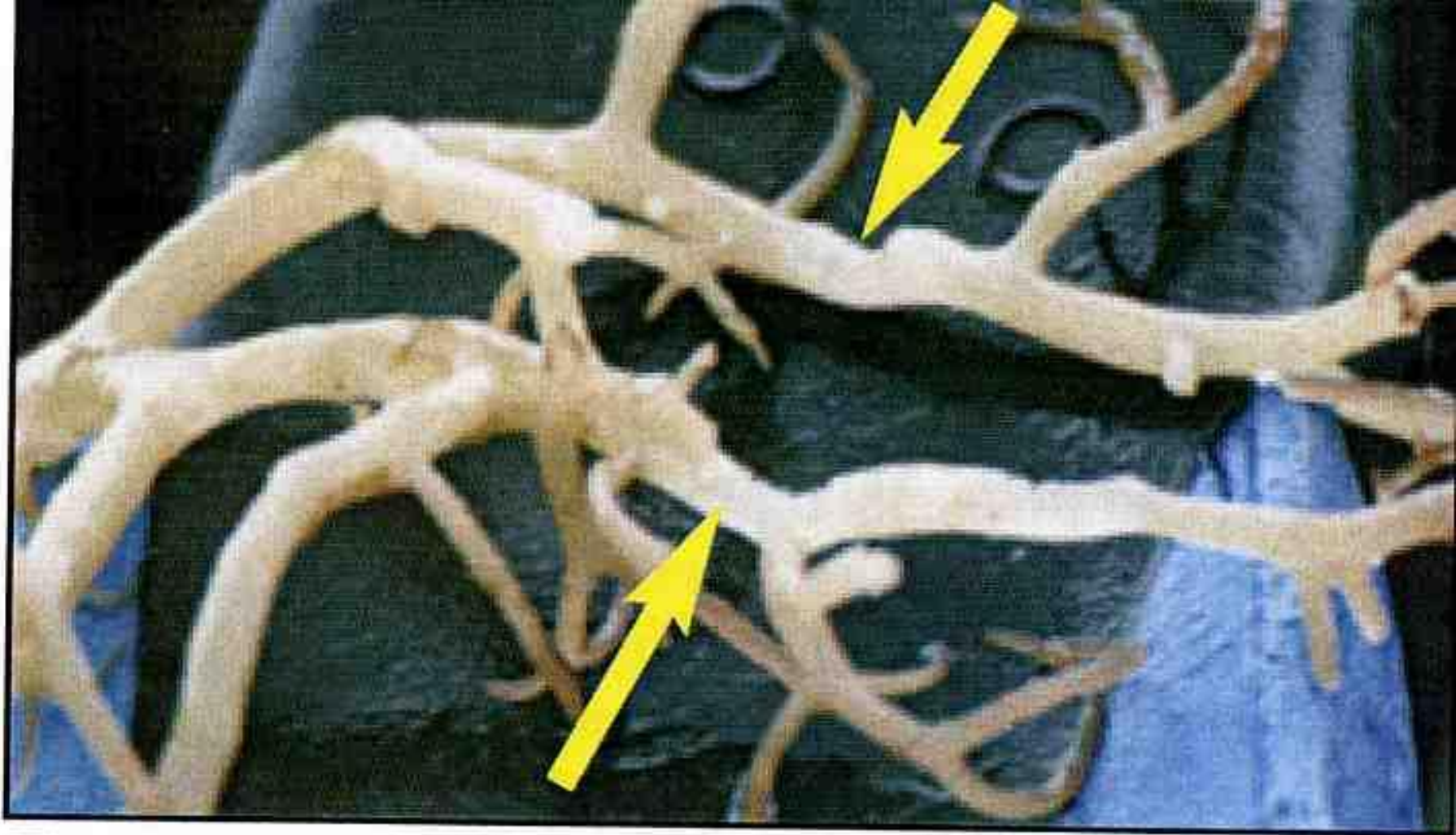


Figure 3.18 Tripneustes gratilla has “planed” the branches of this cottonii plant (yellow arrows). Not only is the pigment gone, but the branches are heavily gouged.

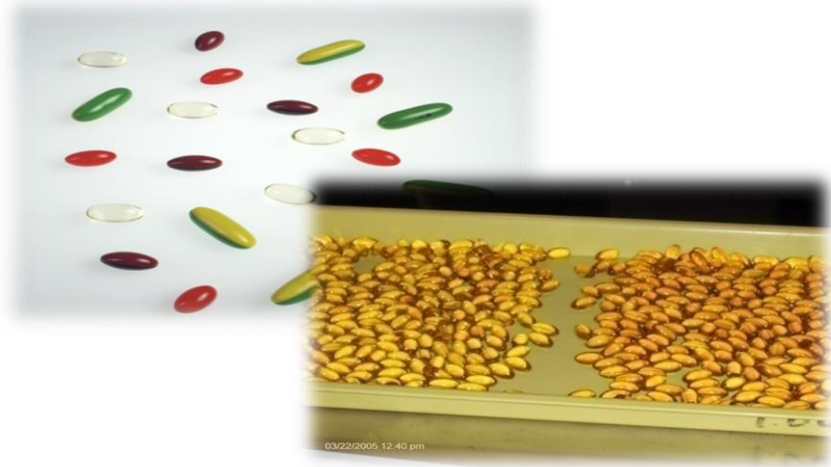


Application of Carrageen

CARRAGEENAN APPLICATIONS



NEW APPLICATIONS



ANIMAL-FREE SOFT GEL CAPSULES



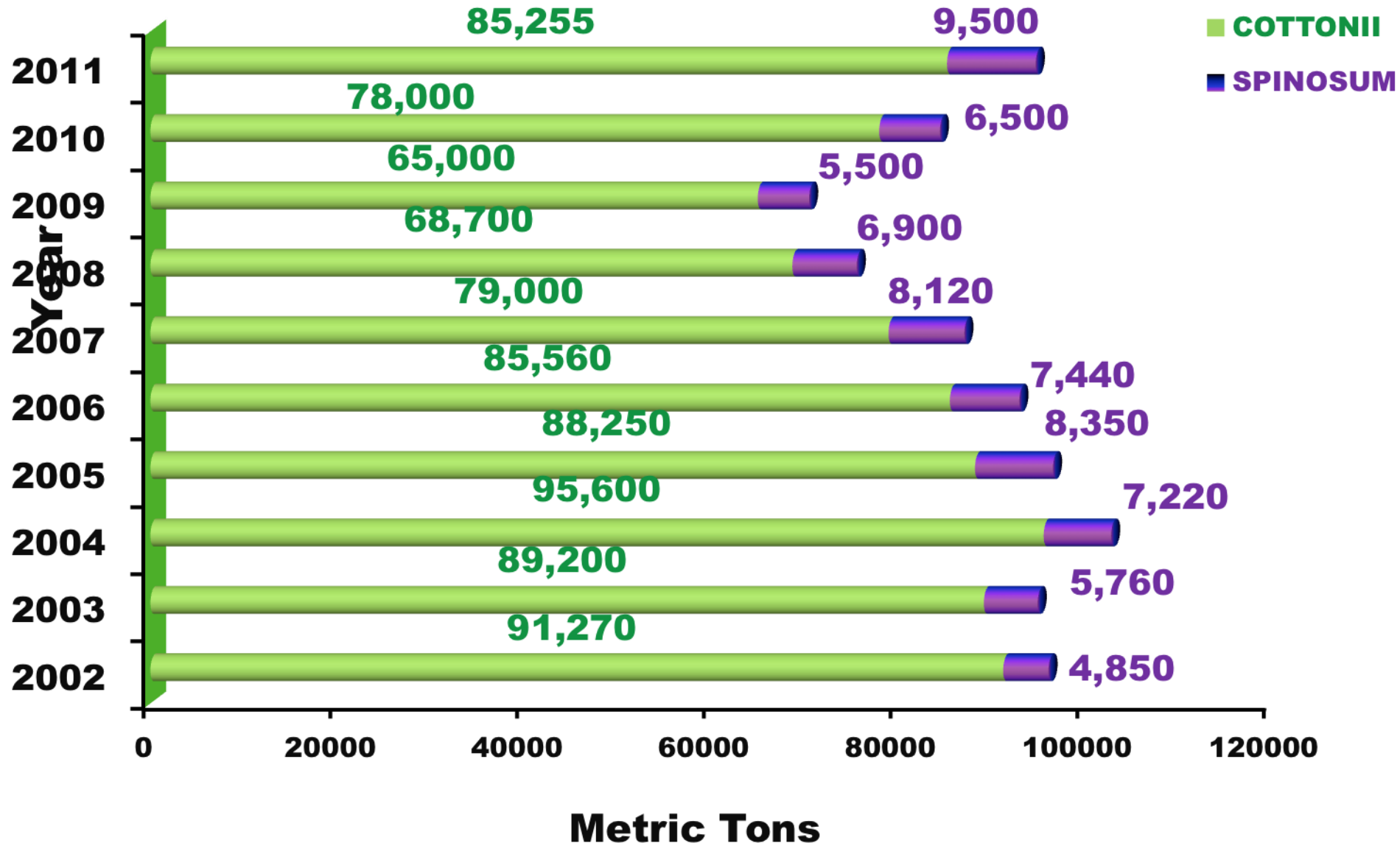
BIODEGRADABLE, DIGESTIBLE FILMS



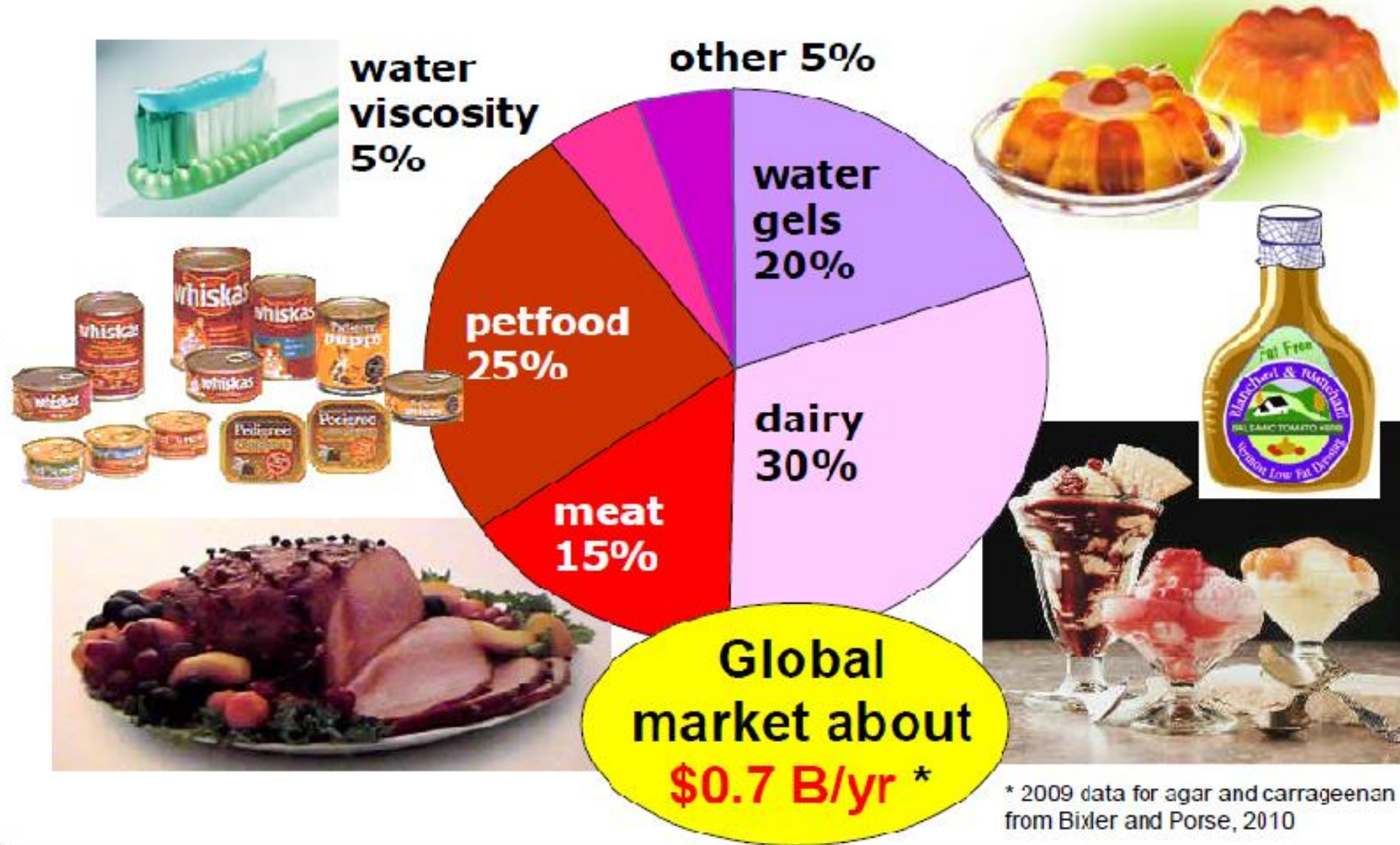
MICROBICIDES

BRIEF HISTORY OF THE PHILIPPINE CARRAGEENAN INDUSTRY

- 1964** - Beginning of the Philippine seaweed industry.
- 1978** - Establishment of the first Semi-Refined Carrageenan (SRC) for petfood processing facility in Cebu
- 1984** - Establishment of the first Semi -Refined Carrageenan (SRC) for food grade processing facility in Cebu
- 1985** - The Seaweed Industry Association of the Philippines (SIAP) was organized
- 1986** - First Refined Carrageenan (RC) processing facility was established in Cebu
- 1990 – 1994** - Turmoil in the Philippine seaweed industry due to petitions and complaints in Europe and the USA against the PNG or SRC
- 1995** - Approval of PNG or SRC as FOOD ADDITIVE (E-407a)



Current markets for carrageenan



Major kappa-carrageenan "ingredient building blocks"

The indicated price ranges prevailed from 2000 - 2012
Mid-2008 saw raw-"dried" cottonii prices approaching 3,000 USD/ton and carrageenan prices on the order of 25 USD/kg

DUE TO VALUE CHAIN FAILURE

