THE TWO YEAR ALTERNATE BEARING CYCLE: This is a general diagram only and does not describe accurately any individual grove or growing district in California. Sink strength changes each year, in an "off-crop" year it is mostly to flowers and fruit, in an "on-crop" year it is mostly to growth 來 F M A M A | S | O | N | D | J | F MULTIPLE SHOOT GROWTH CYCLES HAPPEN AT THE SAME TIME: Flowering Fruit set Fruit growth and maturation Harvest • there can be several happening at the same time • the challenge is to get these in balance with one another • each year only looks like one series of events but are a combination Flowering Fruit set **Bud break** Shoot growth Flower bud development Fruit growth and maturation Harvest of different stages of the growth cycle Bud break Shoot growth Flower bud development Flowering Fruit set Fruit growth and maturation Harvest **SHOOT LIFE CYCLES:** Each growth flush takes two years from bud Bud break Shoot growth Flower bud development Flowering break until fruit set on the flush are harvested J F M A M J **EXAMPLES OF CRITICAL TIMES FOR: Phytophthora** control: apply control measures when the roots are the primary sink; the best application times are indicated by the arrows Calcium accumulation in the fruit: make sure calcium is available in the soil water in the first 6-8 weeks after fruit set as indicated by the arrows. Bud break Shoot growth Flower development Flowering and shoot growth Fruit ready to harvest Roots Fruit set