COTTON COMPENSATION FOR FRUIT LOSS DUE TO INSECTS

WHITNEY CROW

ANGUS CATCHOT

JEFF GORE

DON COOK

Whitney Crow

Extension Entomologist

Delta Research and Extension Center

wdc165@mssstate.edu

Cell: 901-592-8787

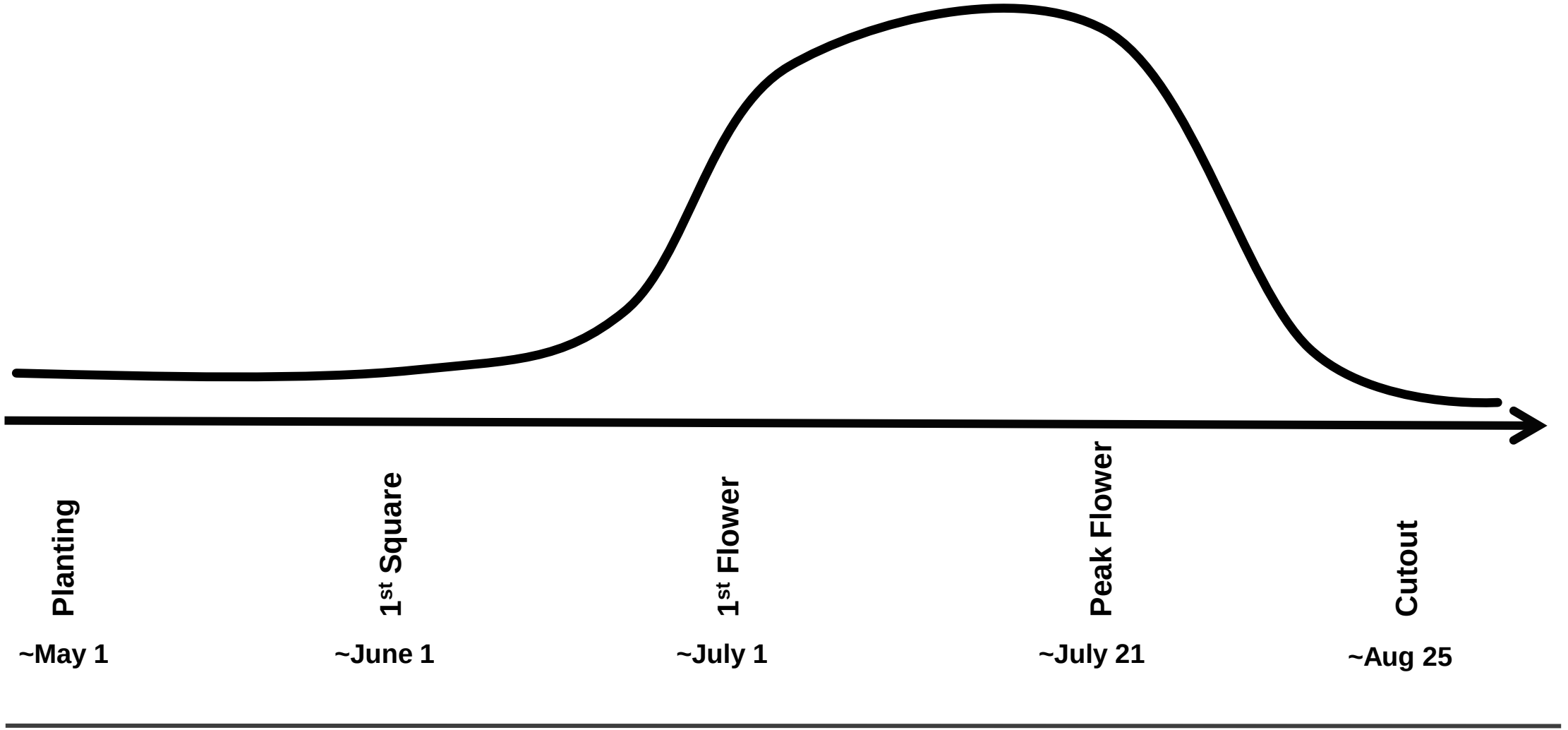
COTTON COMPENSATION AND IMPORTANCE

- Compensation:
  - The plants ability to recover from some degree of damage or fruit loss
- Delayed Maturity
- Yield Loss

FACTORS THAT IMPACT COMPENSATION POTENTIAL:

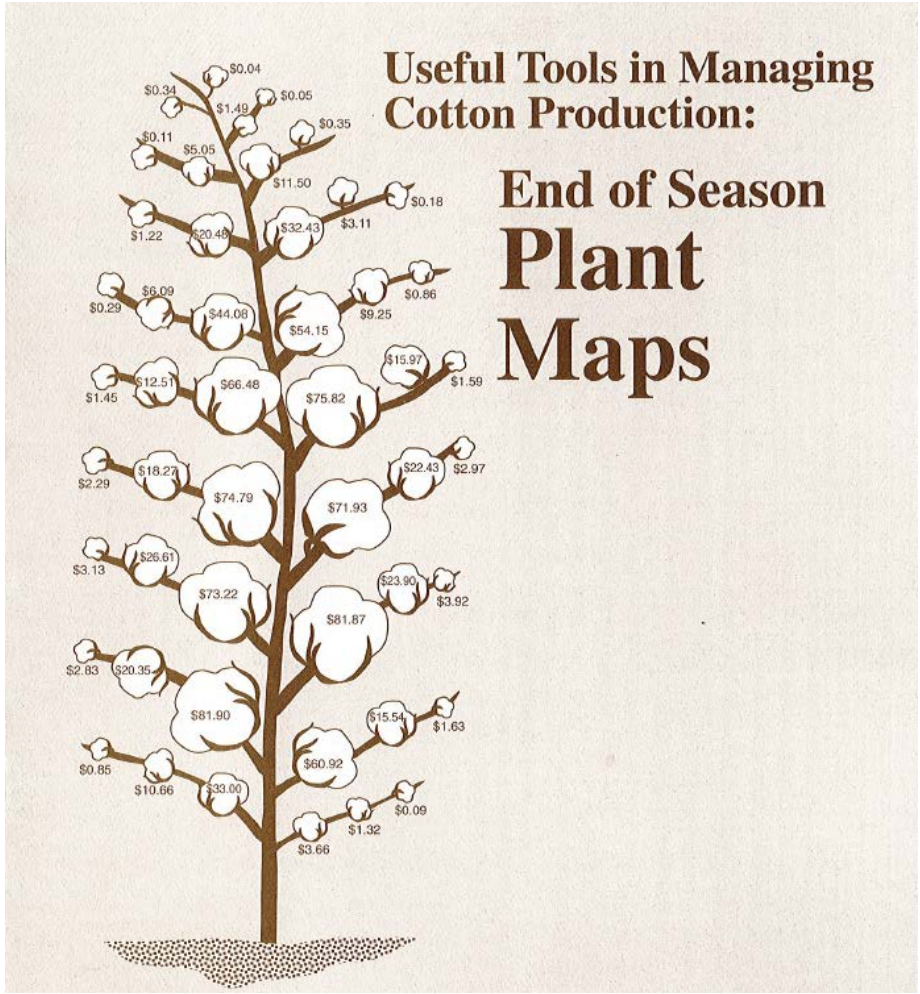
- Damage
  - Timing
  - Severity
  - Location of Damage
- Environmental conditions

POTENTIAL IMPACT OF PESTS ON COTTON YIELD



MAJOR PESTS

JENKINS & MCCARTY MONEY TREE



- 1st position: 66-75%
- 2nd position: 18-21%

PERCENTAGE OF BOLLS: NODES

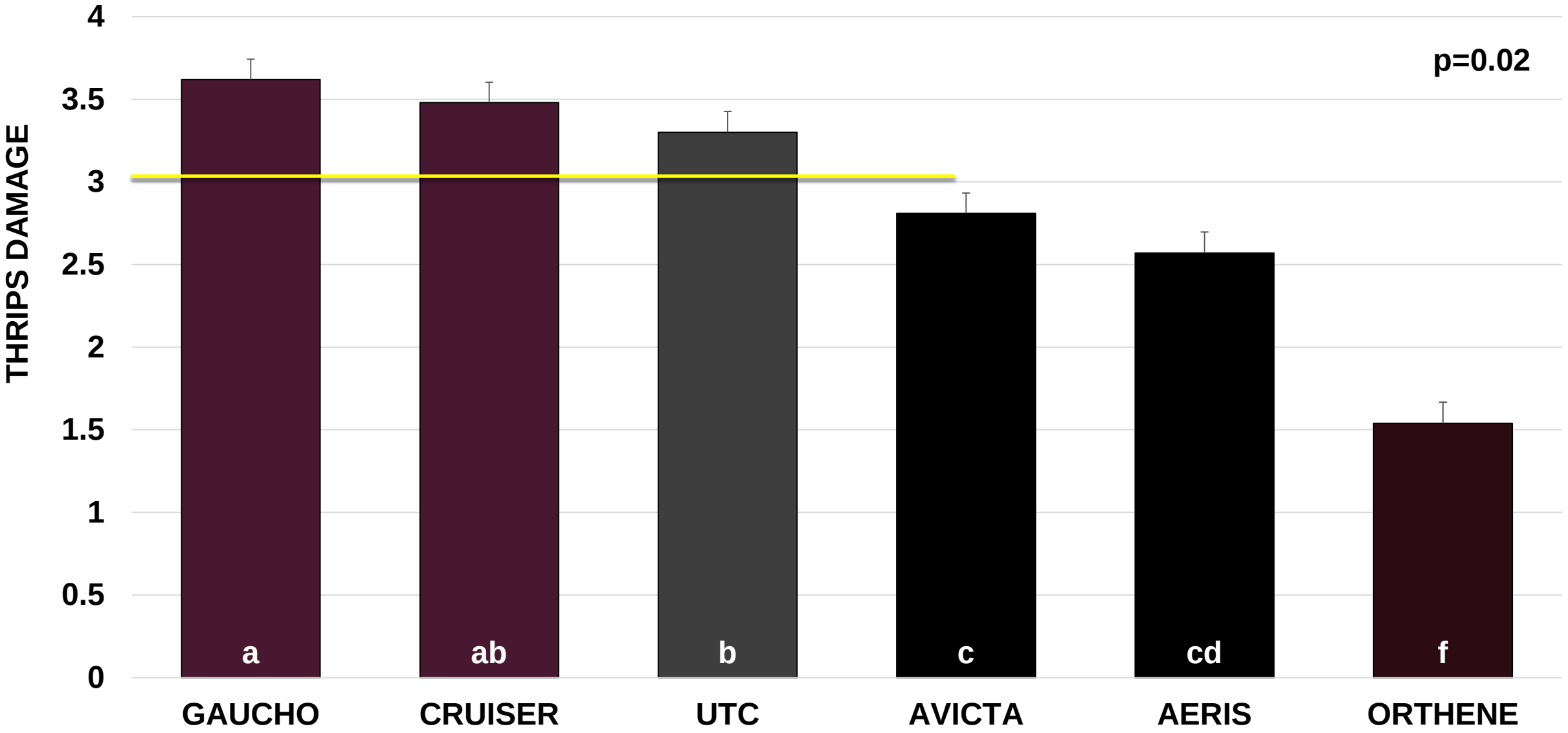
Nodes	DP1555 B2RF	DP1851 B3XF	DP117 B2RF	ST4554 B2RF
5-8	26	12	40	41
9-12	37	42	45	44
13+	37	46	15	15

PERCENTAGE OF BOLLS: POSITIONS

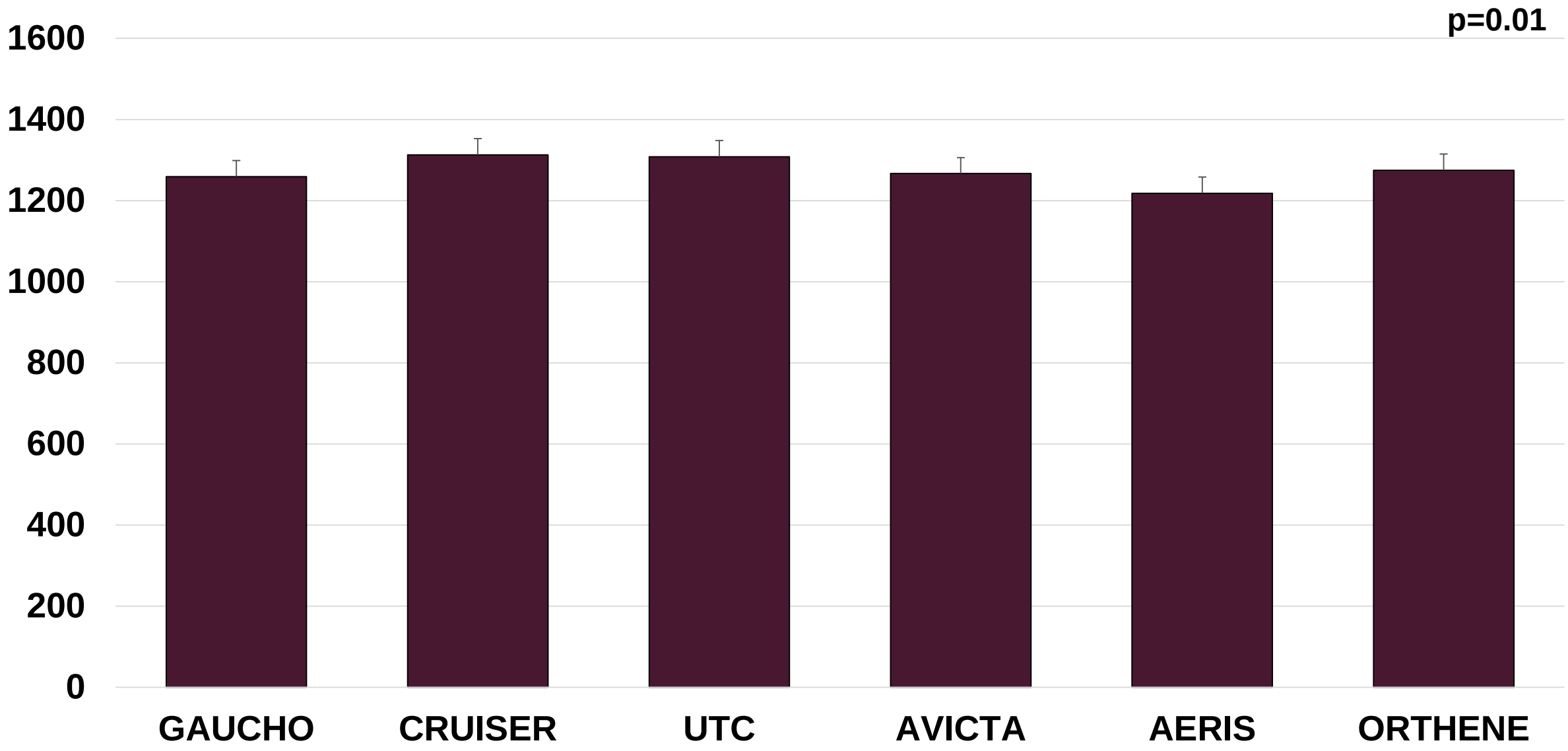
Position	DP1555 B2RF	DP1851 B3XF	DP117 B2RF	ST4554 B2RF
1	67	63	75	75
2	25	31	20	19
3	7	5	5	5

PEST MANAGEMENT EXAMPLES

THRIPS DAMAGE 3-4 LEAF

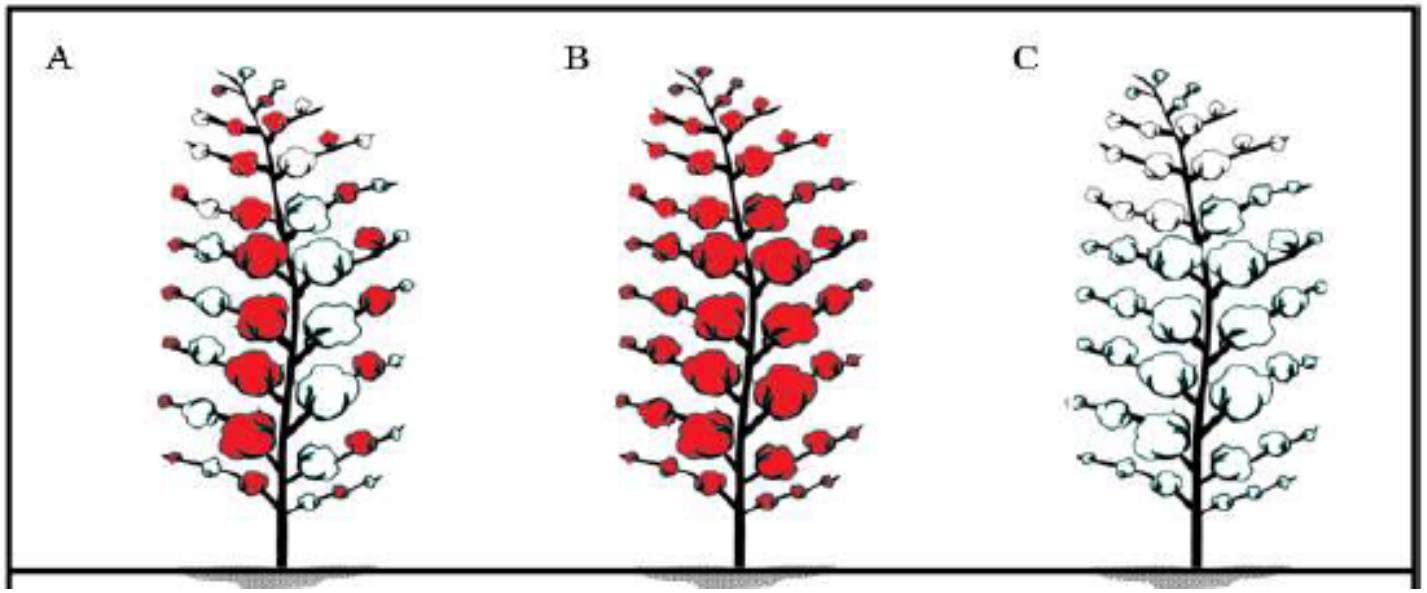


COTTON YIELD

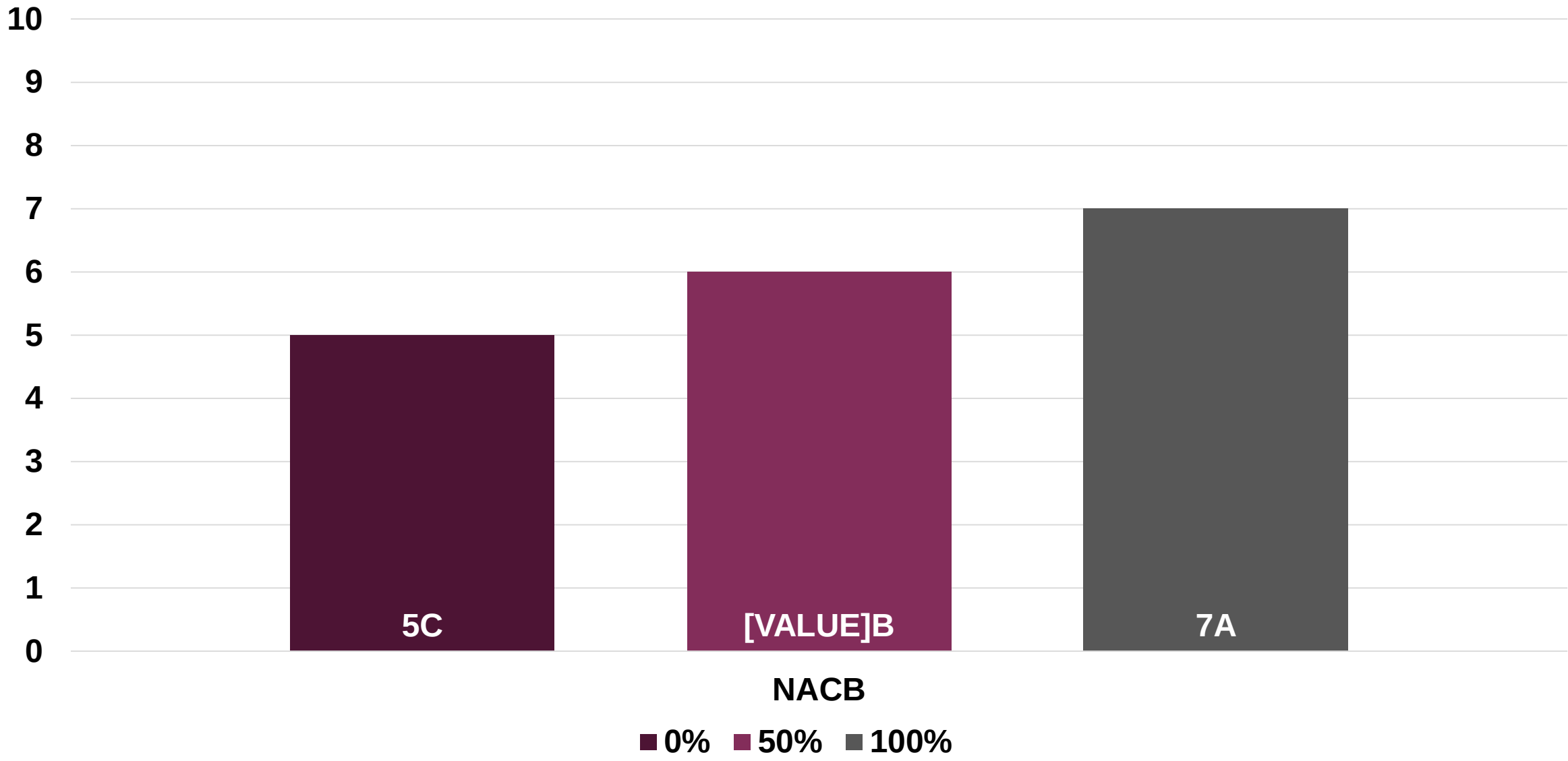


STIMULATED FRUIT REMOVAL

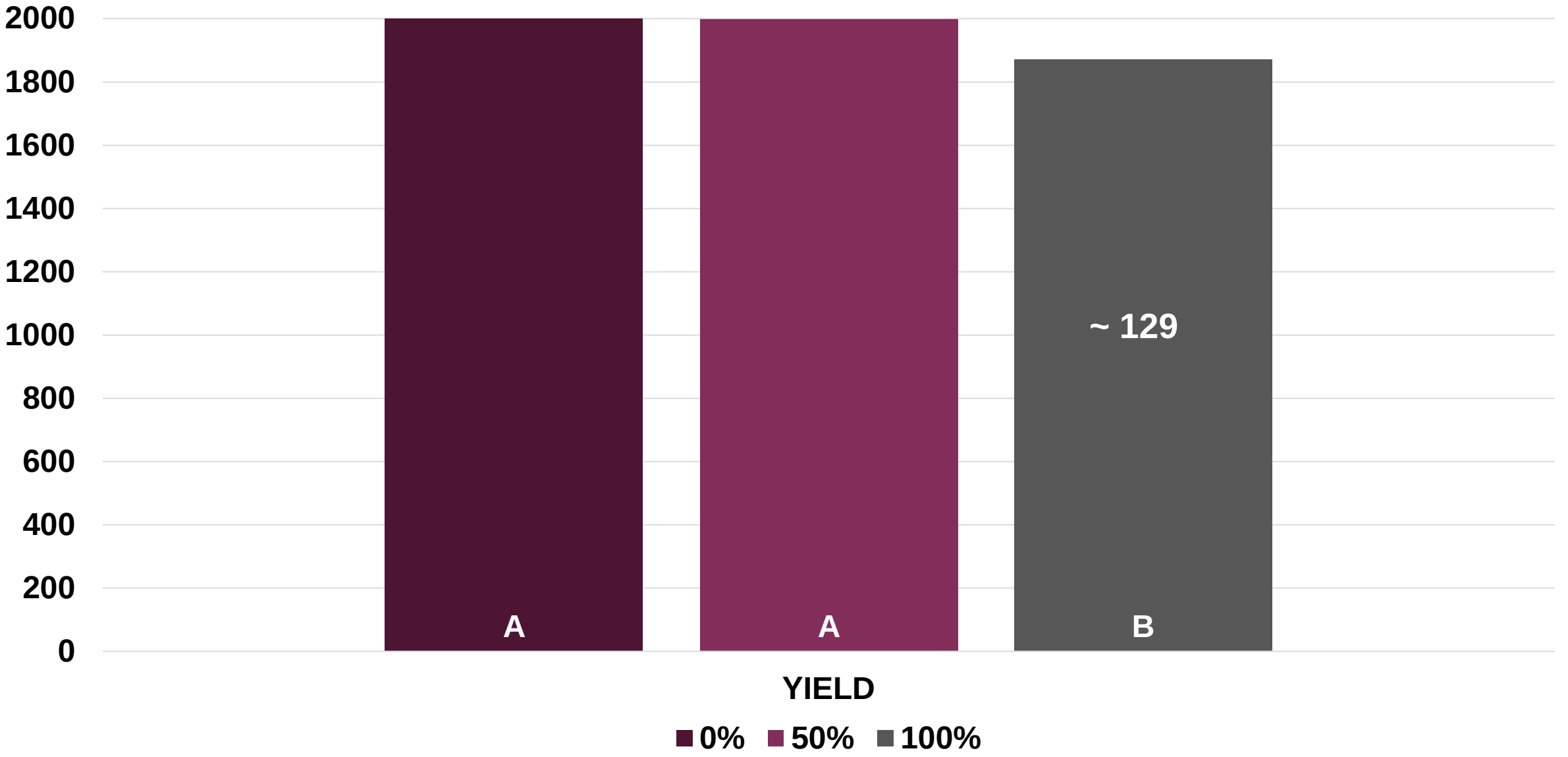
- Fruiting structures removed at first bloom.



SIMULATED FRUIT DAMAGE- NACB



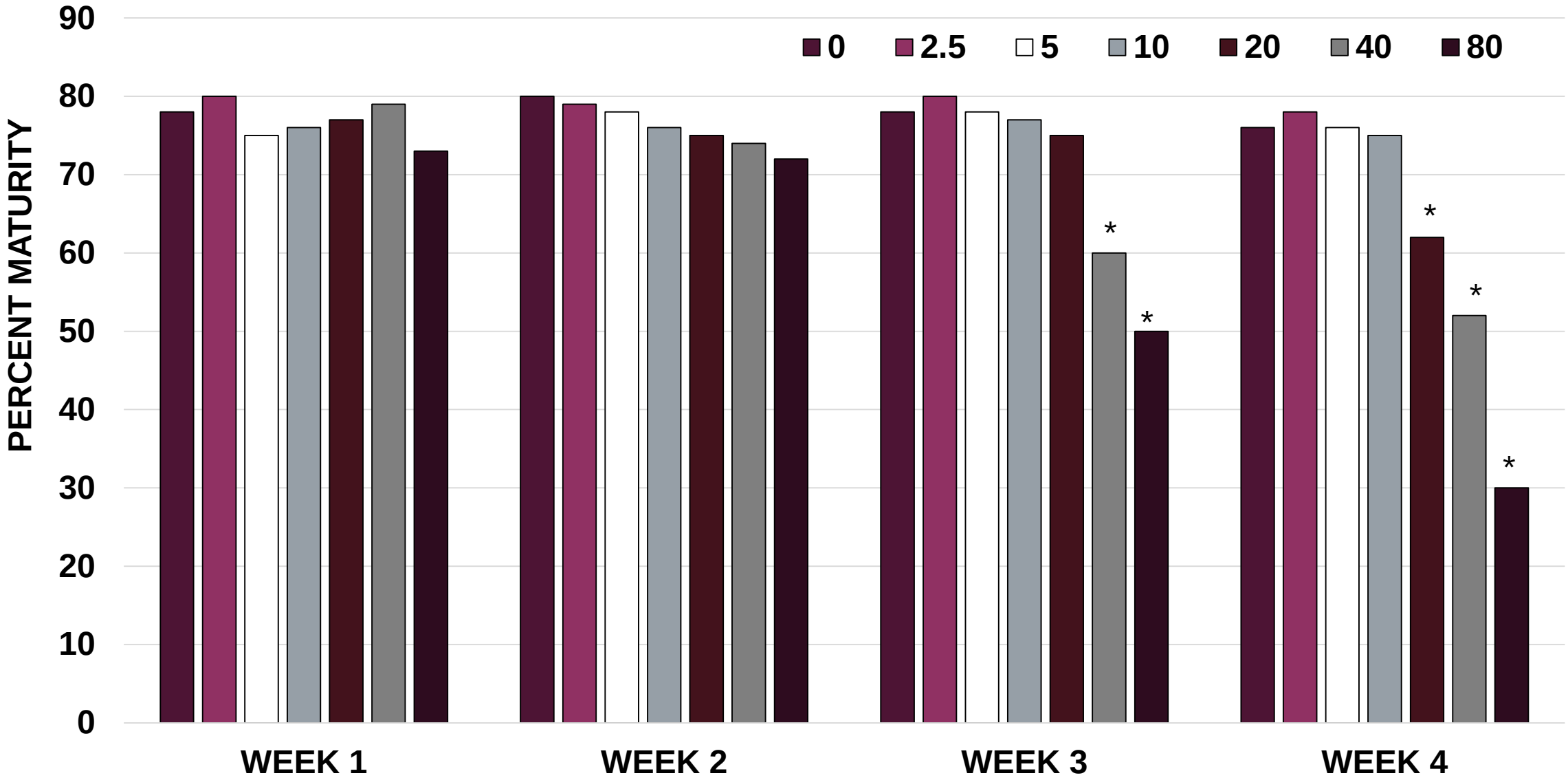
SIMULATED FRUIT DAMAGE- YIELD



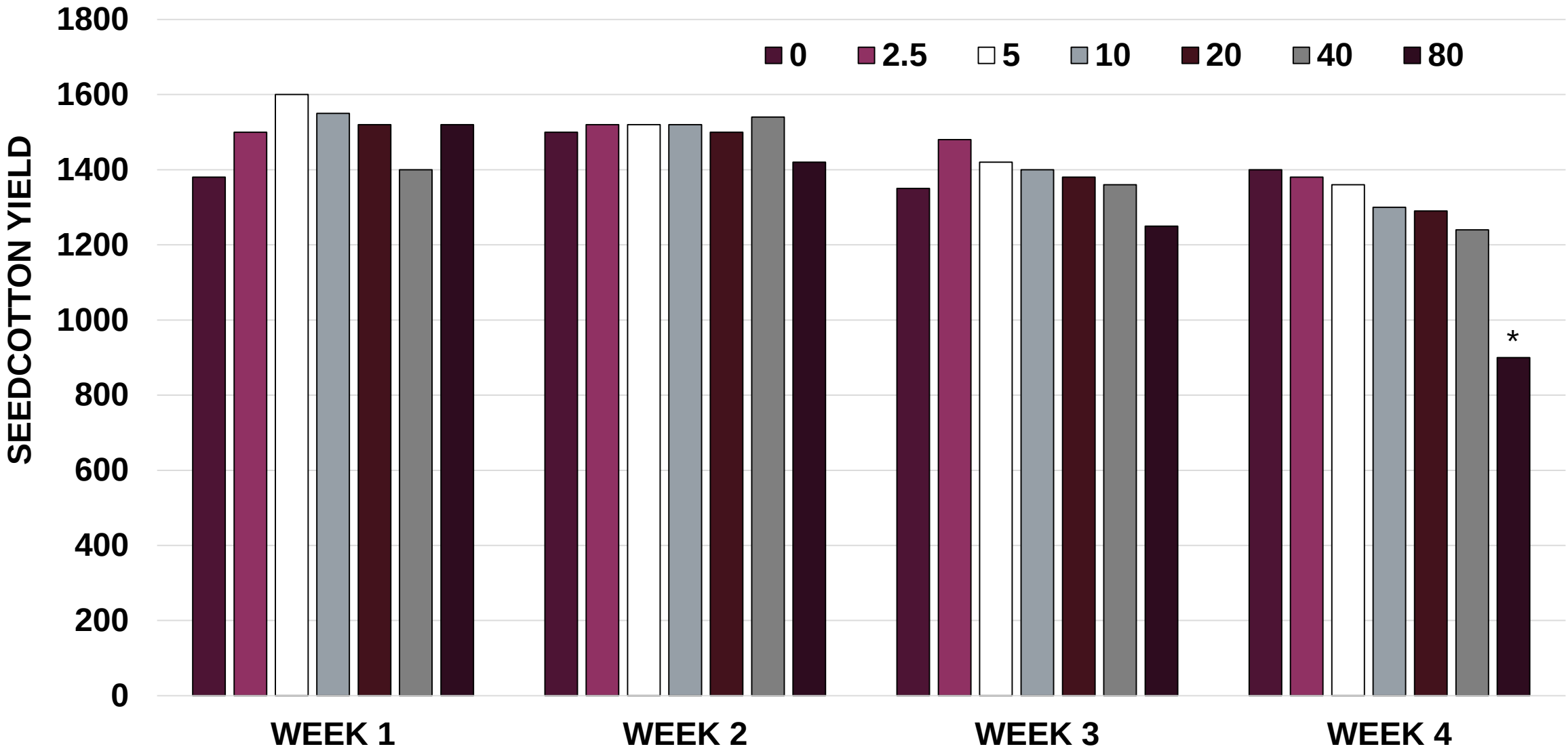
STIMULATED BOLLWORM DAMAGE

- Boll injury
  - Drilling a hole completely through the boll
- Stimulate late instar larvae
  - >L4
- Plots were injured once at various injury levels
  - 0, 2.5, 5, 10, 20, 40, 80

DELAYED MATURITY OF ST474

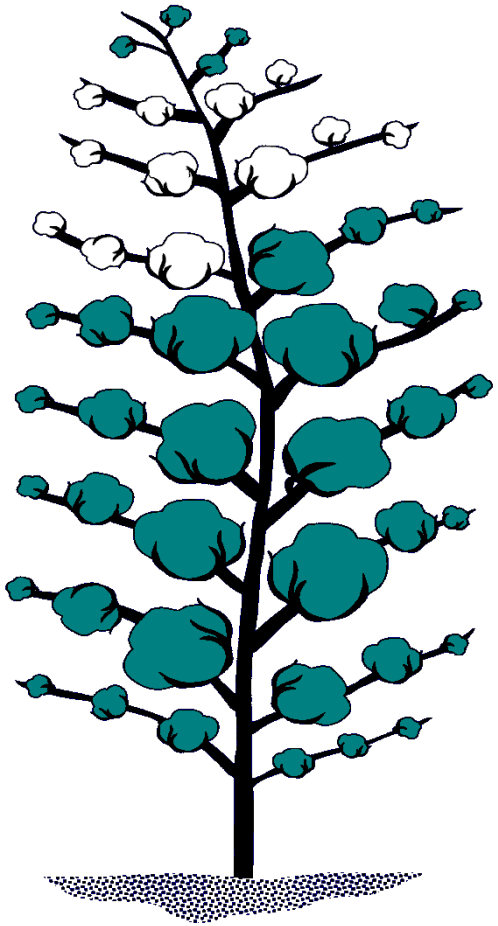


SEED COTTON OF ST474

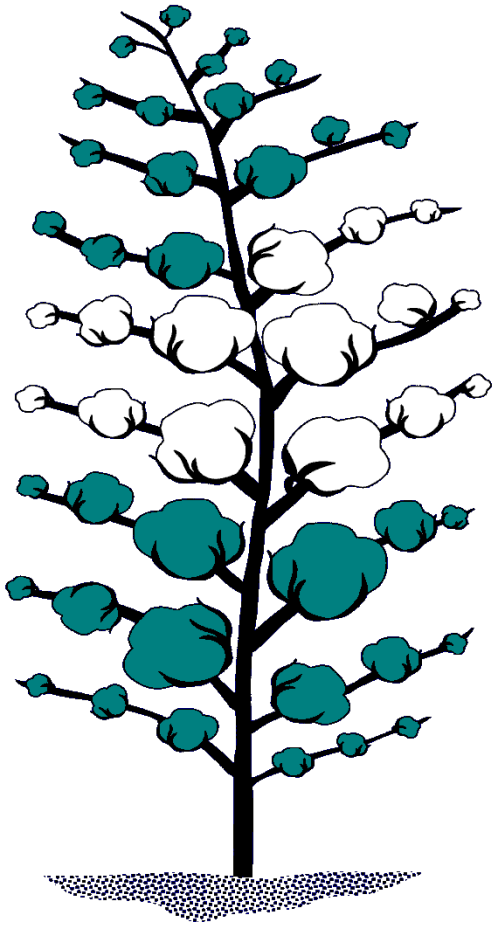


PARTITIONING BY ZONE

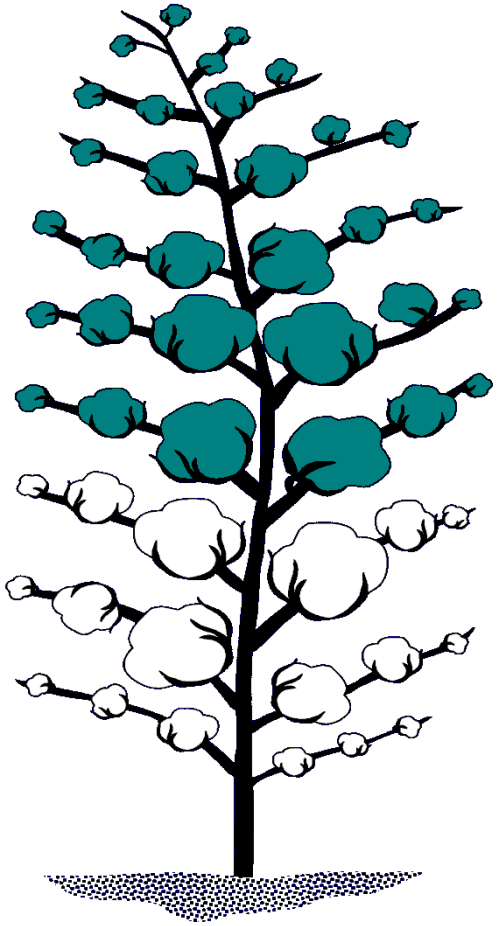
TOP



MIDDLE



BOTTOM



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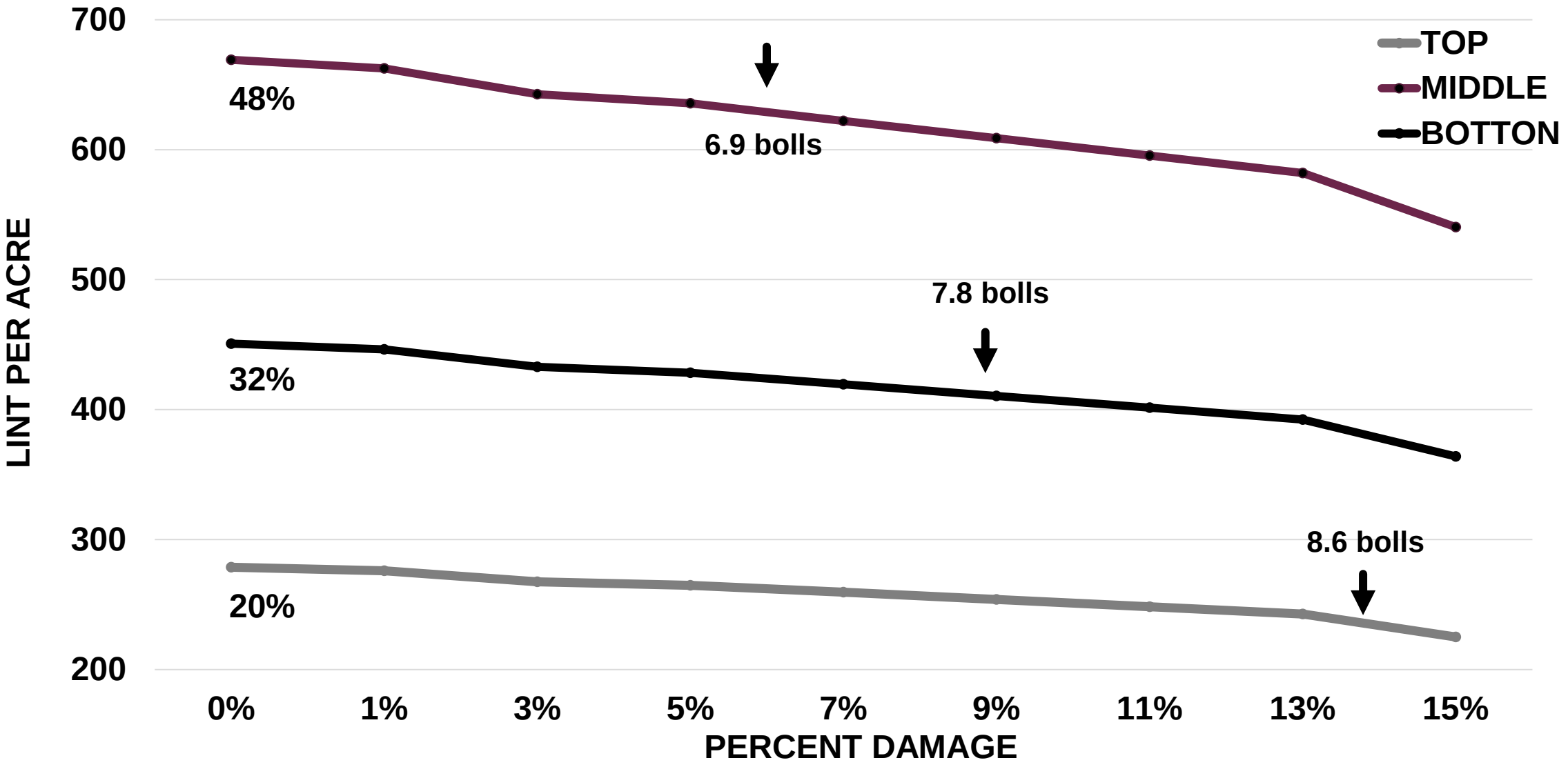
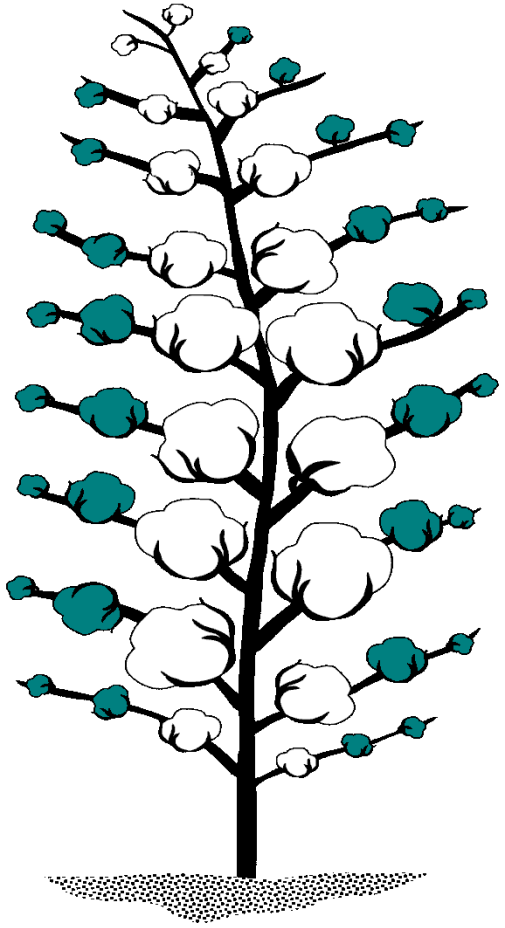
YIELD LOSS BASED ON ZONE

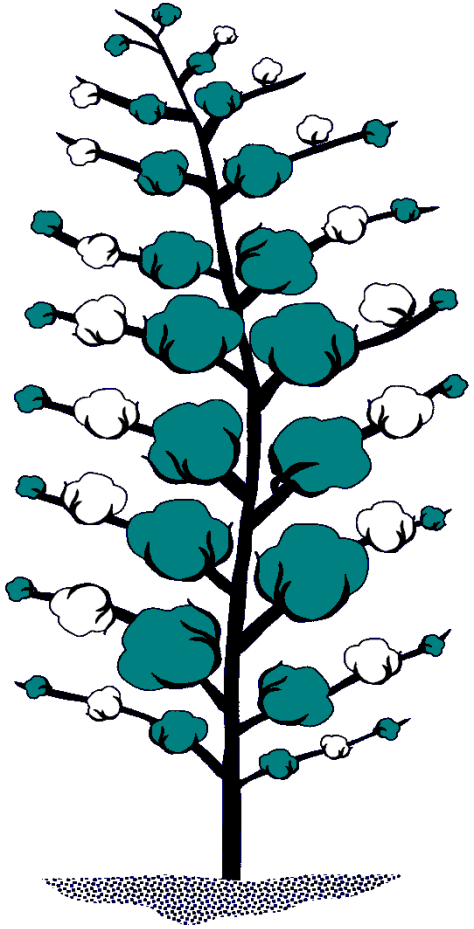


PARTITIONING BY POSITION

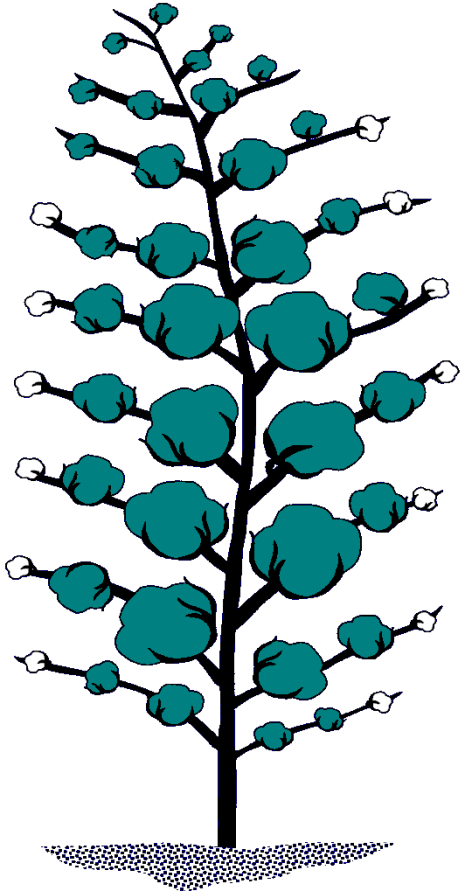
POSITION ONE



POSITION TWO



POSITION THREE



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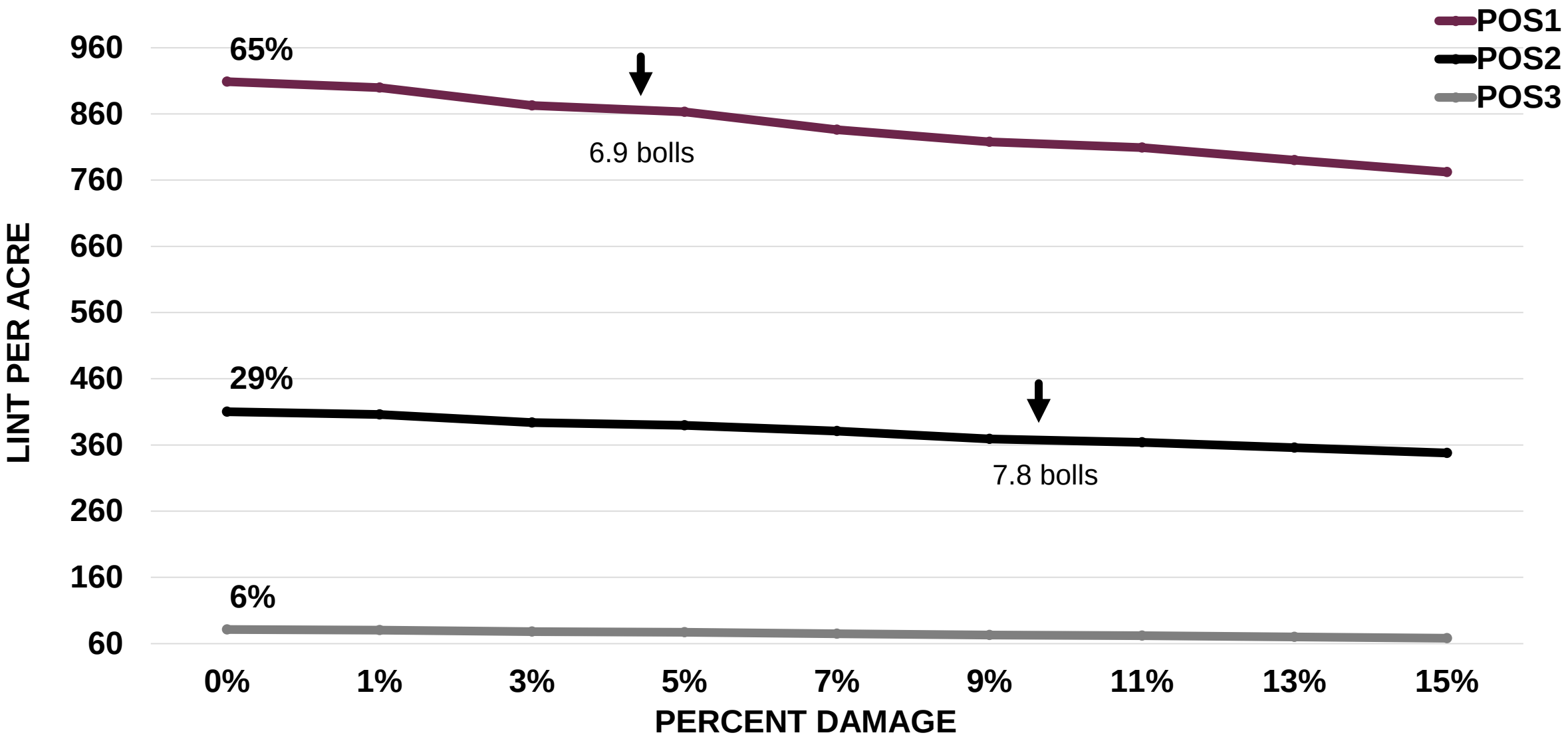
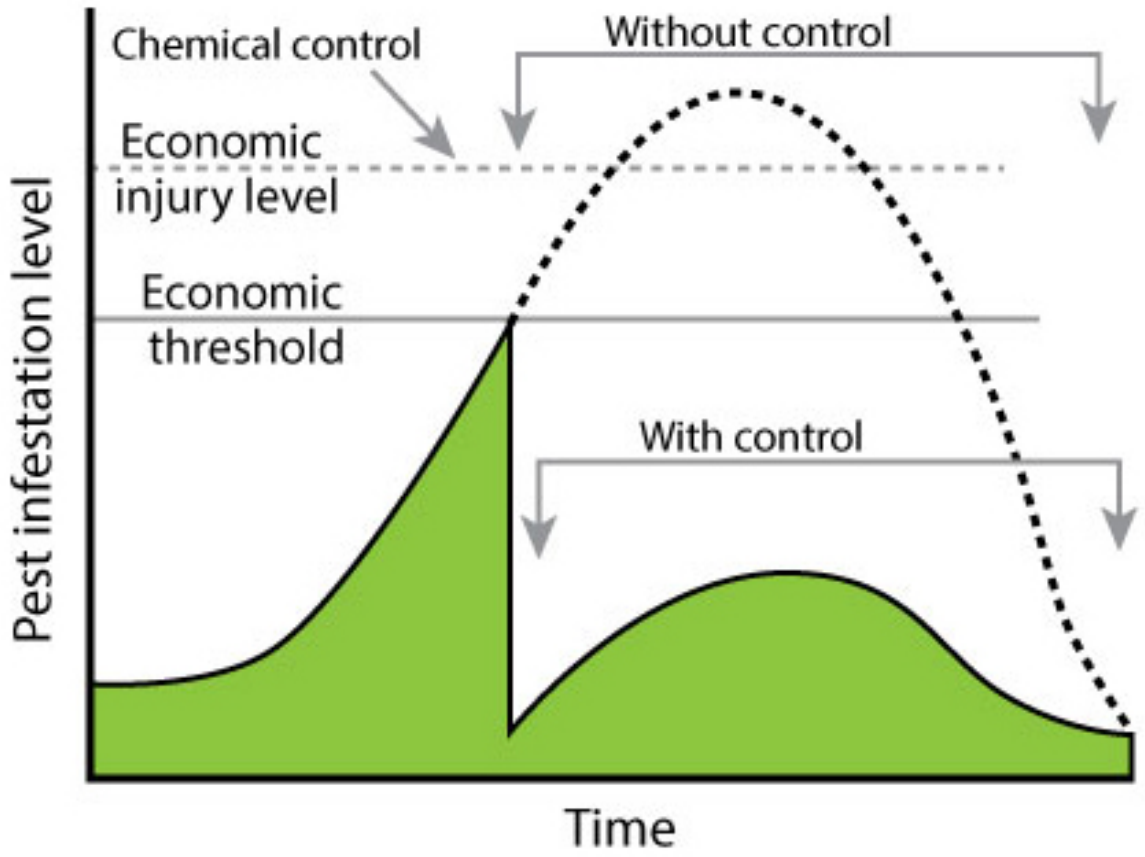
YIELD LOSS BASED ON POSITION





ECONOMIC INJURY LEVELS & ECONOMIC THRESHOLDS

POINTS TO REMEMBER

DAMAGE ≠ ECONOMICAL

SMART DECISIONS

REALISTIC EXPECTATIONS