



Beginning of the Day



Cotman For Consultants

Bob Griffin

Goals

- Making End of Season Decisions
 - When to terminate insecticides
 - When to terminate irrigation
 - When to safely defoliate



- **COTMAN uses cotton crop monitoring techniques to summarize crop development status, detect stress, and assist with in-season and end-of-season management decisions.**

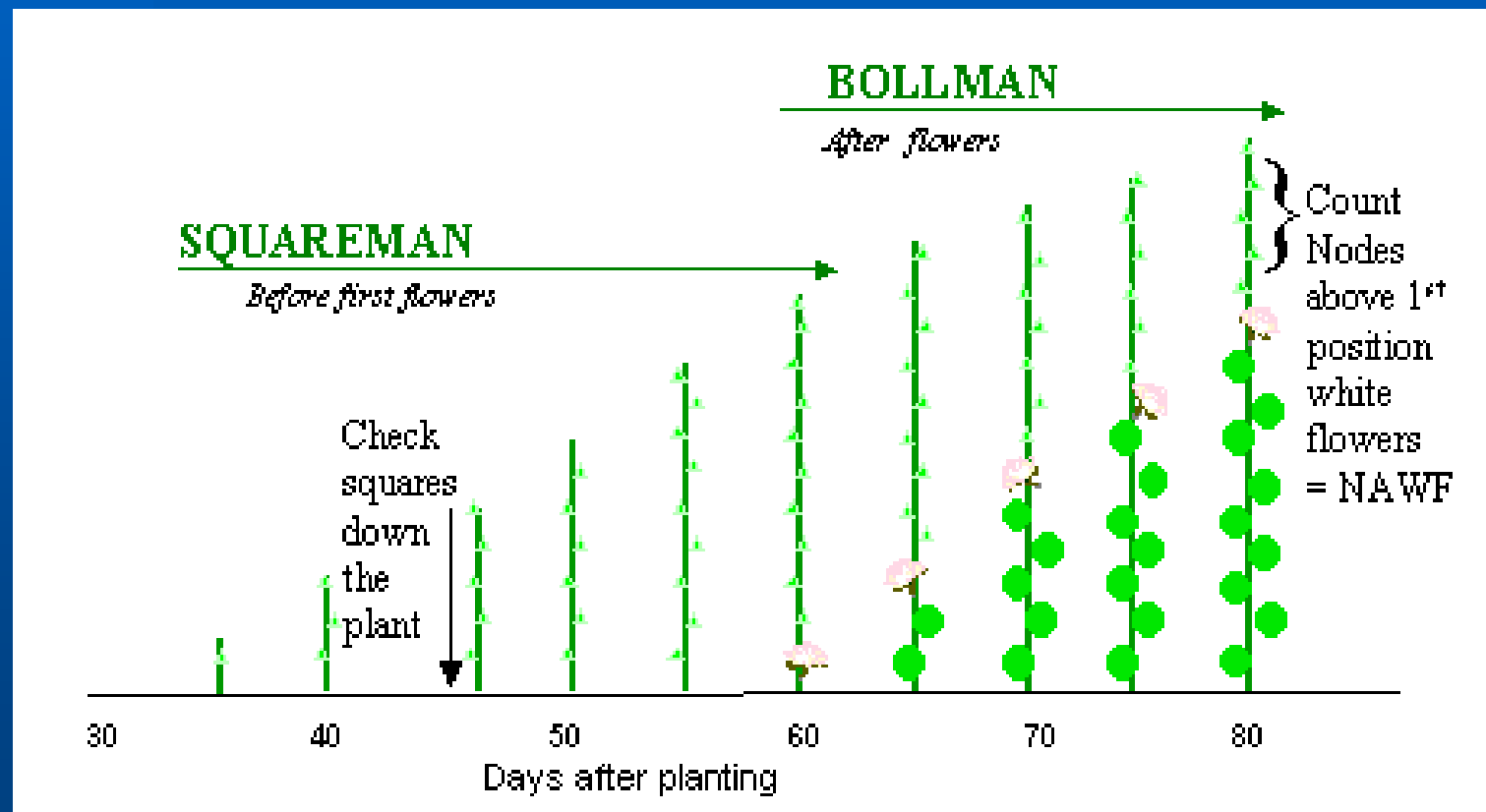
COTMAN COMPONENTS

- **SQUAREMAN** – is used to monitor crop development up to time of first flower. Reports provide feedback on square retention and plant stress.

COTMAN COMPONENTS

- **BOLLMAN is used when the crop is flowering to monitor boll-loading stress and to assist with end-of-season crop termination decisions. BOLLMAN utilizes NAWF data. A non-computer version of BOLLMAN is available.**

Description



BOLLMAN

➤ **BOLLMAN** is the component of **COTMAN** that I use to make end of season decisions.

BOLLMAN DEFINITIONS

- **NAWF – Nodes above uppermost 1st position white flower.**



TOP NODE TO BE COUNTED

1st
Terminal
Node





SAMPLING FOR BOLLMAN

- **20 – 40 Plants / Field**
- **Count nodes above uppermost 1st position white flower that the leaf is completely unfurled on.**

Sample Site Selection

- Select sites where plants represent those that the grower will use to make management decisions.
- Samples should represent the predominate growing conditions in each field.
 - Stand density
 - Soil Type


AVOID

- Avoid these areas unless they represent a large portion of the field .
- Spot applications
- Random physical injury e.g. hail damage)
- Chronic field conditions (sand blows, low spots)

LOCATION OF SAMPLES



Samples should be taken in the same general areas, in the same order from the field each time it is sampled, but avoid sampling the same plants each week.



LOCATION OF SAMPLES

- Sample sites should be located no less than 100 feet from the edge of the field and separated by at least 150 feet.
- If areas of the field are bordered by known insect habitats, take at least one sample from each of these areas.
- In fields larger than 40 acres add one additional sampling site for each additional 10 acres over 40.

Goals

- Making End of Season Decisions
 - When to terminate insecticides
 - When to terminate irrigation
 - When to safely defoliate

When to terminate insecticides



NAWF5 + 350 DD 60's

When to terminate irrigation



NAWF5 + 450 DD60's

When to safely defoliate



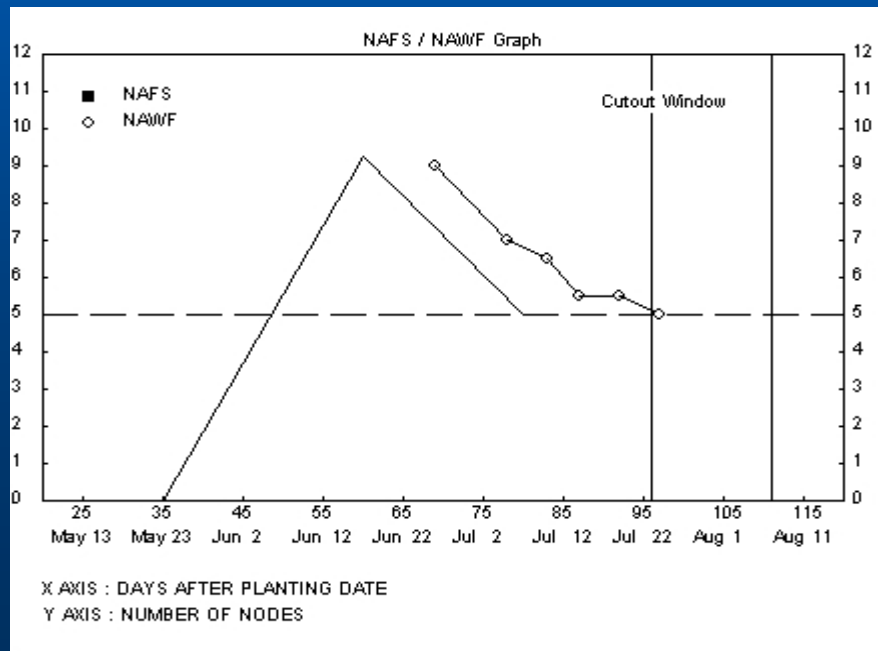
NAWF5 + 850 DD60's

BOLLMAN REPORT

NAFS/NAWF GRAPH

FIELD : M01 YEAR : 2006 ANALYSIS DATE : 10/17

SOIL : Silt Loam ACREAGE : 165 PLANTING DATE : 04/18 CULTIVAR : D&PL 444
IRRIGATION : YES ROW SPACING : 38 LOCAL WEATHER : Marianna REPLANT(%) : 0
USER'S CUTOUT : LONG TERM WEATHER : Marianna, AR, 1948-2005 RISK LEVEL : 15



BOLLMAN REPORT

CUTOUT INFORMATION

- **Physiological cutout before Last Possible Cutout.**
- **Physiological Cutout (NAWF = 5) : 07/24**
- **Days, Planting to NAWF = 5 : 97**
- **Latest Possible Cutout Date : 08/07**
- **Cutout Type : Crop Maturity**

HEAT UNIT TOTAL and THRESHOLD DATES

Heat unit total(to date 10/17) : 1325.80
calculated from NAWF = 5 : 07/24.

| Heat Unit Threshold | Actual Date | Projected Date |
|------------------------|----------------|-------------------|
| ----- | ----- | ----- |
| 350 | 08/09 | - |
| 450 | 08/14 | - |
| 650 | 08/22 | - |
| 850 | 09/02 | - |

Summary Report of Farm BillGerrardIII in Year 2006, 08/05

FARM : BillGerrardIII **YEAR : 2006** **ANALYSIS DATE : 08/05**
GROWER : BillGerrardIII **LOCATION : ARKANSAS, AR**
DAILY PICKER CAPACITY : 40 **HARVEST DAYS PER WEEK : 6** **TOTAL ACREAGE : 1133**
DAYS BETWEEN DEFOLIATION AND HARVEST INITIATION : 20 **TARGET HARVEST COMPLETION DATE : 11/01**
LONG TERM WEATHER : Marianna, AR, 1948-2005 **ACCEPTABLE WEATHER RISK : 15**

Table Name : NAWF **Table Title : (none)** *** : projected**

| Field Name | Current NAWF | NAWF5 Date | HU Total ACD | HU Total LPCD | Days To NAWF5 | HU350 Date | HU450 Date | HU850 Date | Last Data Date |
|--------------------|--------------|------------|--------------|---------------|---------------|------------|------------|------------|----------------|
| <u>Daggett40</u> | 5.00 | 07/18 | 397.00 | - | 91 | 08/03 | 08/08* | 08/29* | 07/18 |
| <u>Eason</u> | 5.00 | 07/18 | 397.00 | - | 95 | 08/03 | 08/08* | 08/29* | 07/18 |
| <u>YellowHouse</u> | 5.00 | 07/18 | 397.00 | - | 95 | 08/03 | 08/08* | 08/29* | 07/18 |
| <u>010</u> | 5.00 | 07/22 | 303.50 | - | 85 | 08/08* | 08/13* | 09/03* | 07/22 |
| <u>Harden</u> | 5.00 | 07/22 | 303.50 | - | 96 | 08/08* | 08/13* | 09/03* | 07/22 |

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END RESULT