

**Cotton Scale - a reference system  
for determination of  
developmental stages of the cotton  
plant**

*C.J.M. Marur and Onaur Ruano  
Instituto Agronomico do Parana, Rodovia Celso Garcia Cid Km BRAZIL  
Correspondence author [cjmarur@pr.gov.br](mailto:cjmarur@pr.gov.br); [cjmarur@iapar.br](mailto:cjmarur@iapar.br)*

## ABSTRACT

This work presents a reference system that easily identifies the stages of development of upland cotton (*Gossypium hirsutum* L.) independently of genotype, age of plant, or environmental influence. These stages are basically characterized as functions of the phenological phases, namely, vegetative (V), formation of flower buds (B), flowering (F) and boll cracking (C). Between seedling emergence up to the time when the first true leaf has expanded to 2.5 centimeters, measured on the mid-vein, the stage of development is designated V 0. Between the upper limit of V0 until the mid-vein of the second true leaf measures 2.5 cm is V1. Applying the same criterion successively, the plant will advance through the stages V2, V3, V4, V5, etc. When the first flower bud (square) is visible the stage designation changes to B1. Successively, determined by when the first square of a new fruiting branch (sympodium) is visible, the stage will become B n. When the square at the first fruiting position of the first sympodium reaches anthesis

(open flower), the stage designation becomes F1. Any subsequent developmental stage, determined by the occurrence of an open flower on the first fruiting node of sympodium n, will be Fn. When the boll at the first fruiting position of the first sympodium begins to dehisce (cracked boll), the stage of development is designated C1. Successive stages will be Cn, where n is the number of the sympodium with a newly cracked boll at the first fruiting position. To determine the predominant stage of development of plants in an experiment, observations should be made on a minimum of 20 plants randomly distributed throughout the plot. In the case of a production field, each hectare of the crop should be sampled by the same method. Some specific situations are also discussed.

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