INHERITANCE OF AWNEDNESS IN RICE

JENKIN W. JONES

INTRODUCTION

The rice varieties now grown commercially in California consist of awnless and of partly awned varieties. Fully awned varieties are no longer grown commercially in California. In fully awned varieties all spikelets are awned, but the awns may vary on the same panicle from 1 mm to 6 cm or more in length. In partly awned varieties both awned and awnless spikelets are present on the same panicle, while in true awnless varieties the awns are entirely lacking. In California, good examples of each of these three groups are the Butte, Caloro, and Colusa varieties, respectively.

Jones (3) has observed that some apparently awnless rice varieties produce awns on the panicles of secondary or branch culms. These branch culms often are produced by plants that are allowed to stand in the water unharvested after the panicles of the primary culm have matured. This is a good illustration of a plant of identical genetic constitution producing a different end result under slightly different environmental conditions. Late in the growing season, the branch culm panicles, which are produced after the primary panicles have matured, must develop under lower temperatures than those which prevailed when the main-culm panicles were produced. The humidity also is higher late in the season, and the