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关于稻麦理论分蘖数计算公式的一些补充

莫惠栋

江苏农学院农学系

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摘要 设N_i为第i次分蘖的理论数,k为分蘖的最高次数,n为主茎出叶数,则N_i和k均是n的函数。如果主茎芽鞘节和分蘖的分蘖鞘节均不发生分蘖,则k=(n—1)/3,Ni=C_(n-2i-1)~i(i=1,2,…,k)。如果主茎芽鞘节和分蘖的分蘖鞘节均能发生分蘖,则k=(n—1)/2,N_i=C_(n-i-1)~i(i=1,2,…,k)。以上k值均只取整数,不计小数。本文详细解释了建立上述公式的生物学基础,并以代数方法证明了理论分蘖数N_i和相应的组合数C_(n-2 i-1)~i或C_(n-i-1)~i为恒等关系。

关键词 叶蘖同伸规则, 分蘖数, 水稻, 小麦, 大麦

分类号

A Supplement for the Calculation of Theoretical Number of Tillers in Rice, Wheat and Barley

Mo Huidong

Department of Agronomy,Jiangsu Agricultural College,Yangzhou

Abstract Let N_i be the theoretical number of the ith order tillers, i.e., the number of til-lers from leaf tiller synchronously-emerged regularity, k the highest order of tillers andn the number of emerged leaves on main culm of a plant. Both N_i and k are thefunctions of n. When no tiller is produced at the nodes of coleoptile and scale-leaf,k=(n-1)/3 and N_i=C_(n-2 i-1)~i(i =1, 2,…, k). When the nodes of coleoptile andscale-leaf can produced tillers, k=(n-1)/2 and N_i=C_(n-i-1)~i(i=1, 2,…,k). T heabove ks are only taken as integers, regardless of decimals. In the paper, the biologi-cal base for establishment of the calcu lation was explained in detail, and the identicalrelationship between the theoretical number of tillers, N_i, and the correspon dingnumber of combinations, C_(n-2 i-1)~i or C_(n-i-1)~i, was algebraically proved.

Key words Leaf-tiller synchronously-emerged regularity Number of tillers Rice Wheat Barley

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通讯作者