

A STUDY ON THE YIELD AND THE PROTEIN CONTENTS OF MUTANT BARLEY LINES

Metin B. YILDIRIM Necdet BUDAK Eylem TUGAY

Ege University, Faculty of Agriculture, Department of Field Crops Bornova, IZMIR, TURKEY

ABSTRACT

Barley mutant lines selected in 1994 based on low and high protein content were grown as progeny rows in the 1994-1995 growing season under Bornova conditions. The plant height, spike length, length of flag leaf, width of flag leaf, sheath of flag leaf, number of tillers, thousand kernel weight, grain yield and protein ratio were determined. The population means, the ranges and the coefficient of variation were estimated and the frequency histograms were plotted.

The protein content varied between 8.1 % and 14.9 % in the base population and 7.07 % and 16.1 % in the progeny rows. The line of I18-40 has low protein content (10.08 %) and high grain yield (302.7 g/plot) was found to be desirable genotype for beer industry. AP3-27, AP3-25 and Efes-21 have high protein content and grain yield and they can be considered for animal feeding.