

Laboratory and two field experiments were conducted to study the effectiveness of magnetic technology as well as humic acid in increasing barley productivity. In general, magnetically treated brackish water accompanied spraying with 100-ppm humic acid at 45 and 60 days of barley sowing gave the highest values in barley yield and its components compared to the control. Results cleared that that magnetized barley grains treatment (soaking barley grains in magnetized water for 8 hours before sowing) surpassed dry grains or hydro-grains treatment (soaking barley grains in tap water for 8 hours before sowing) in germination traits [Germination (%), Germination Index (GI), Speed Germination Index (SGI), Germination Energy (EG; %), Germination Rate GR (day) and Mean Germination Time MGT (day)] and seedling traits [seedling length (cm), ten seedling dry weight (g), seedling vigour-1 and vigour-2] of barley at 14 days after sowing. Results revealed that irrigation barley plants with magnetically treated brackish-water significantly surpassed irrigation with brackish-water treatment in barley yield and its components. Under field conditions.