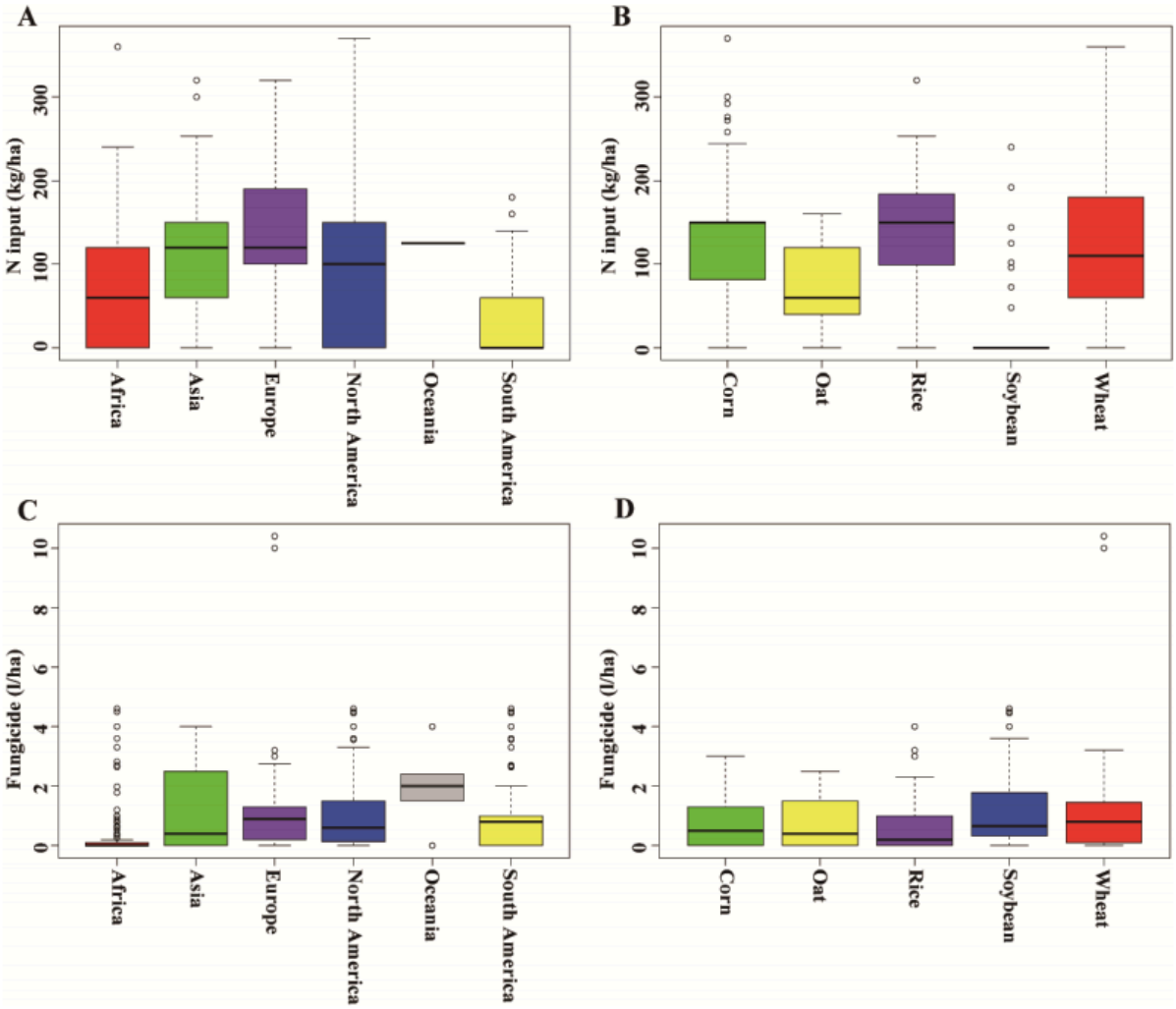

Figure 2-1: Variations in N input across continents (A), among crops (B). And Variations in fungicide application across continents (C) among crops (D). Note: The dataset consists of 2500 observations collected from 57 studies.

2.3.2 Effect of N on Fungal Diseases and Yield of Grain Crops

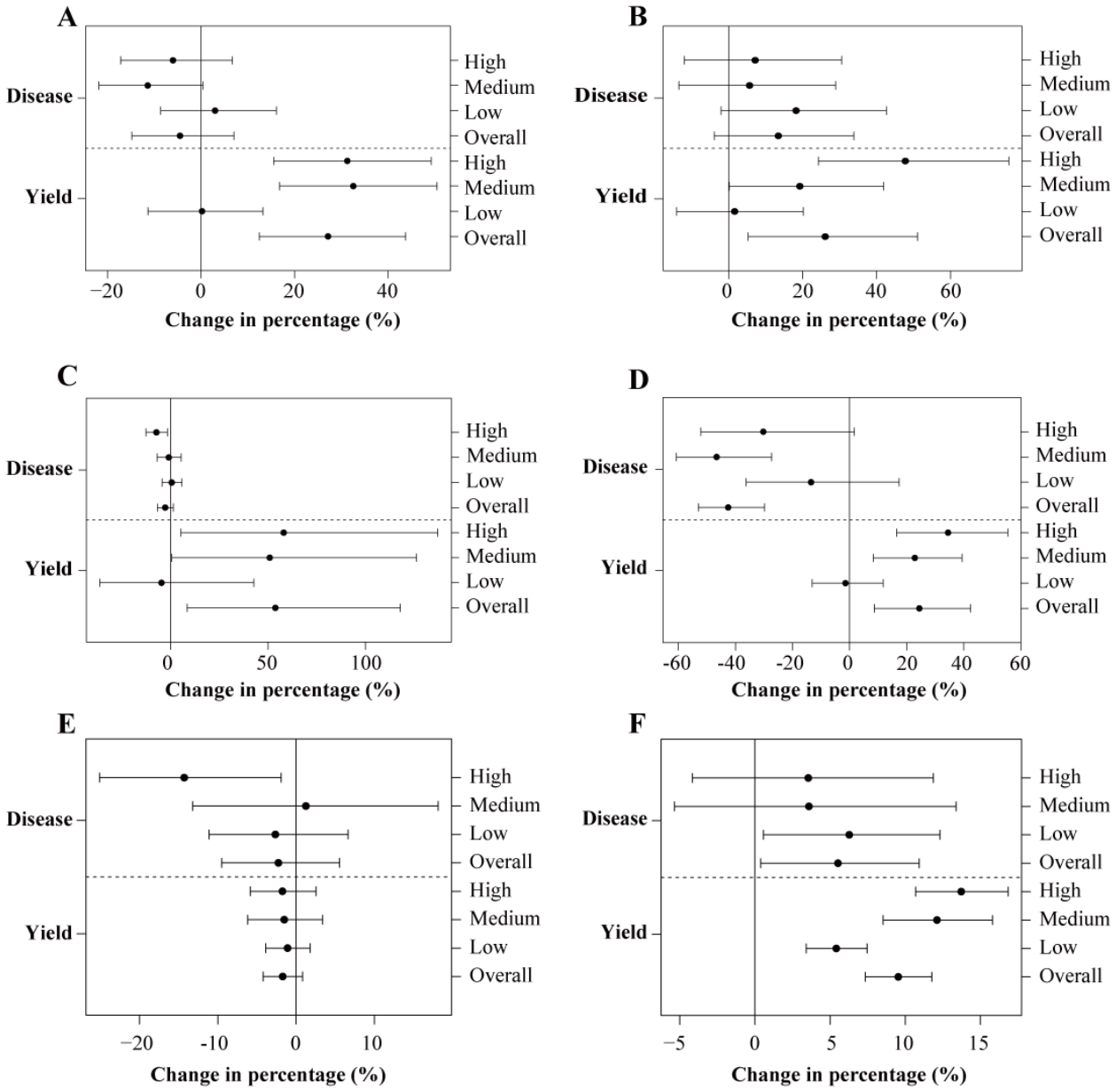

Figure 2-2: The main effect (A) of N fertilization on fungal disease (upper panel) and yield (lower panel) of wheat (B), corn (C), rice (D), soybean (E), and oat (F). Note: Dots show the means; error bars represent 95% confidence intervals. The vertical line at 0 represents the reference levels of yield and disease at the Medium N input, defined as the minimum N input that produced the highest recorded yield in a specific year of a study. N inputs were denoted as High, Medium, Low, and overall N

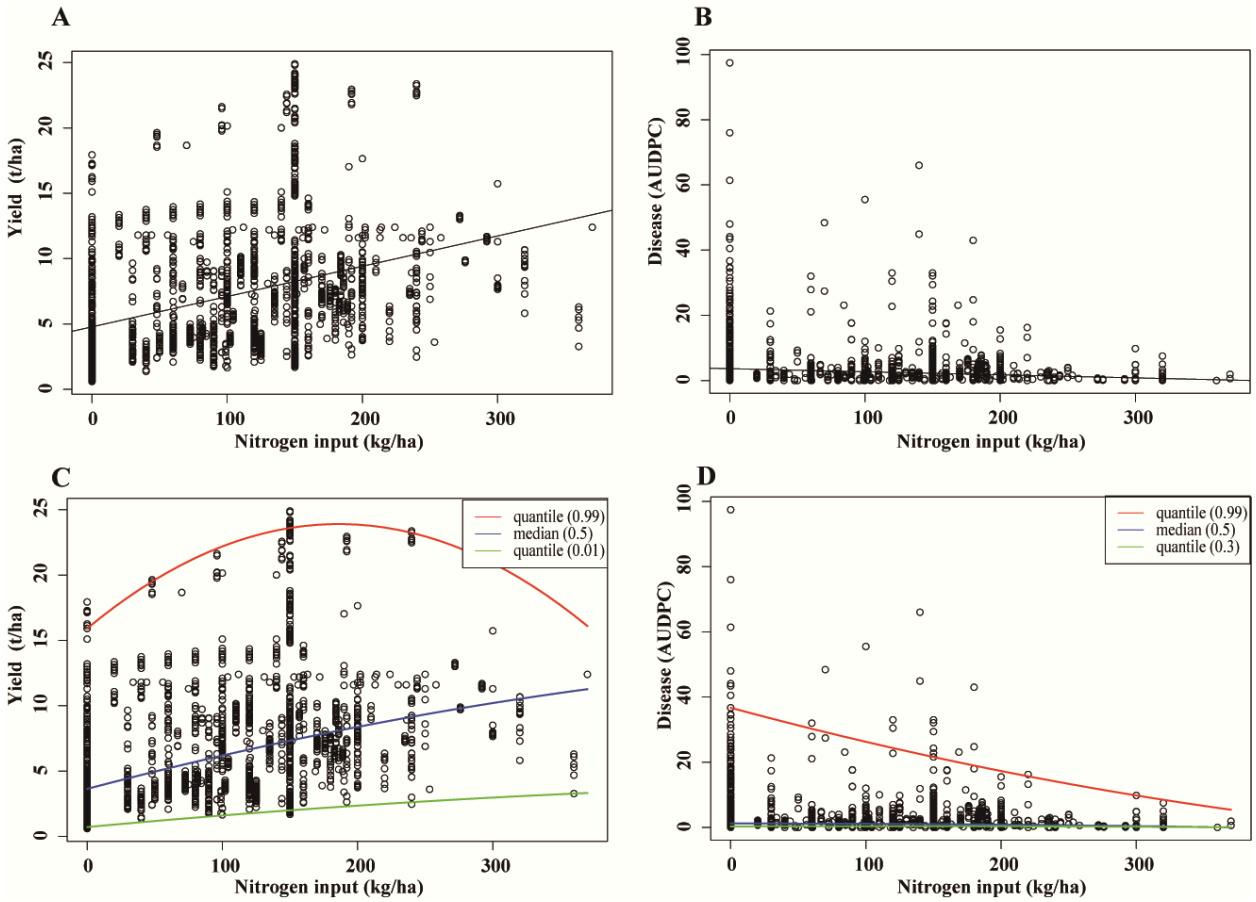

Figure 2-3: An overall response of yield and disease. Note: yield (A) and disease (B) to N input. Overall response of yield(C) and disease (D) to N input at 0.99, 0.5, and 0.01&0.03 quantile levels

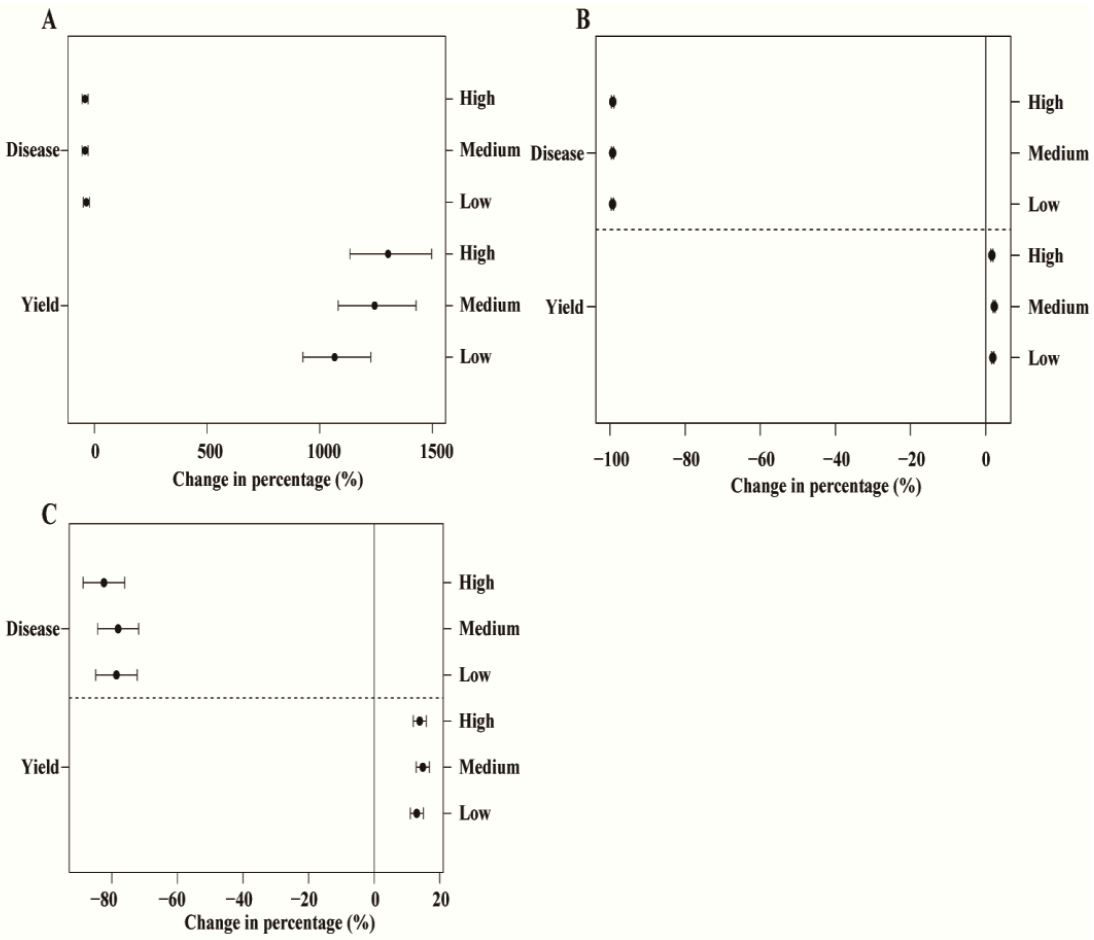

Figure 2-4: The effects of aridity (A), precipitation (B), and temperature (C) on influencing N input to affect major crops yield (lower panel) and disease (bottom panel). Based on 2500 observations and 57 studies, Dots shows the means; error bars represent 95 % confidence intervals

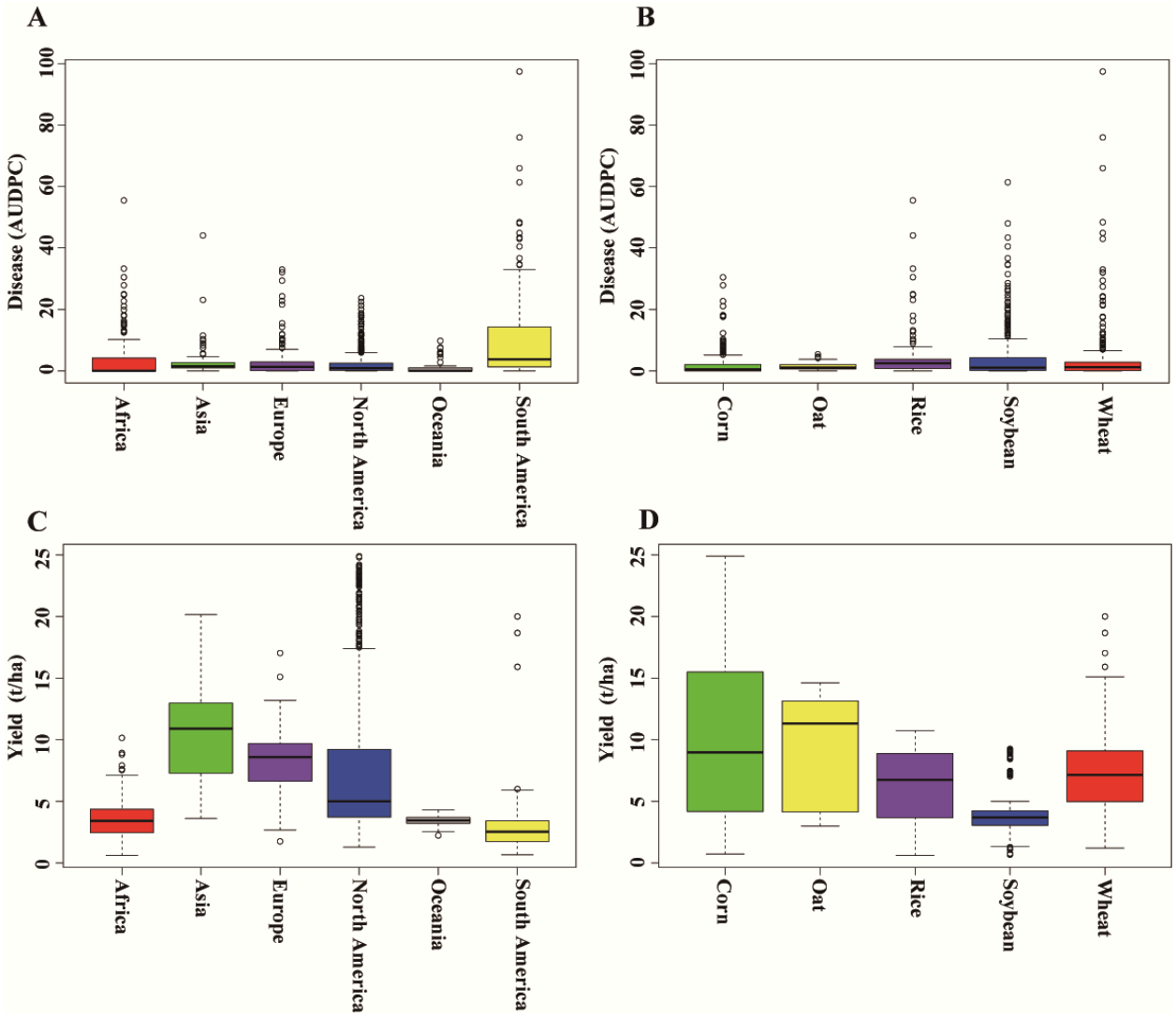

Figure 2-5: Variations in yield and fungal diseases across continents and among crops. Note: Variations in disease across continents (A) and among crops (B). Variations in yield across continents (C) and among crops (D)