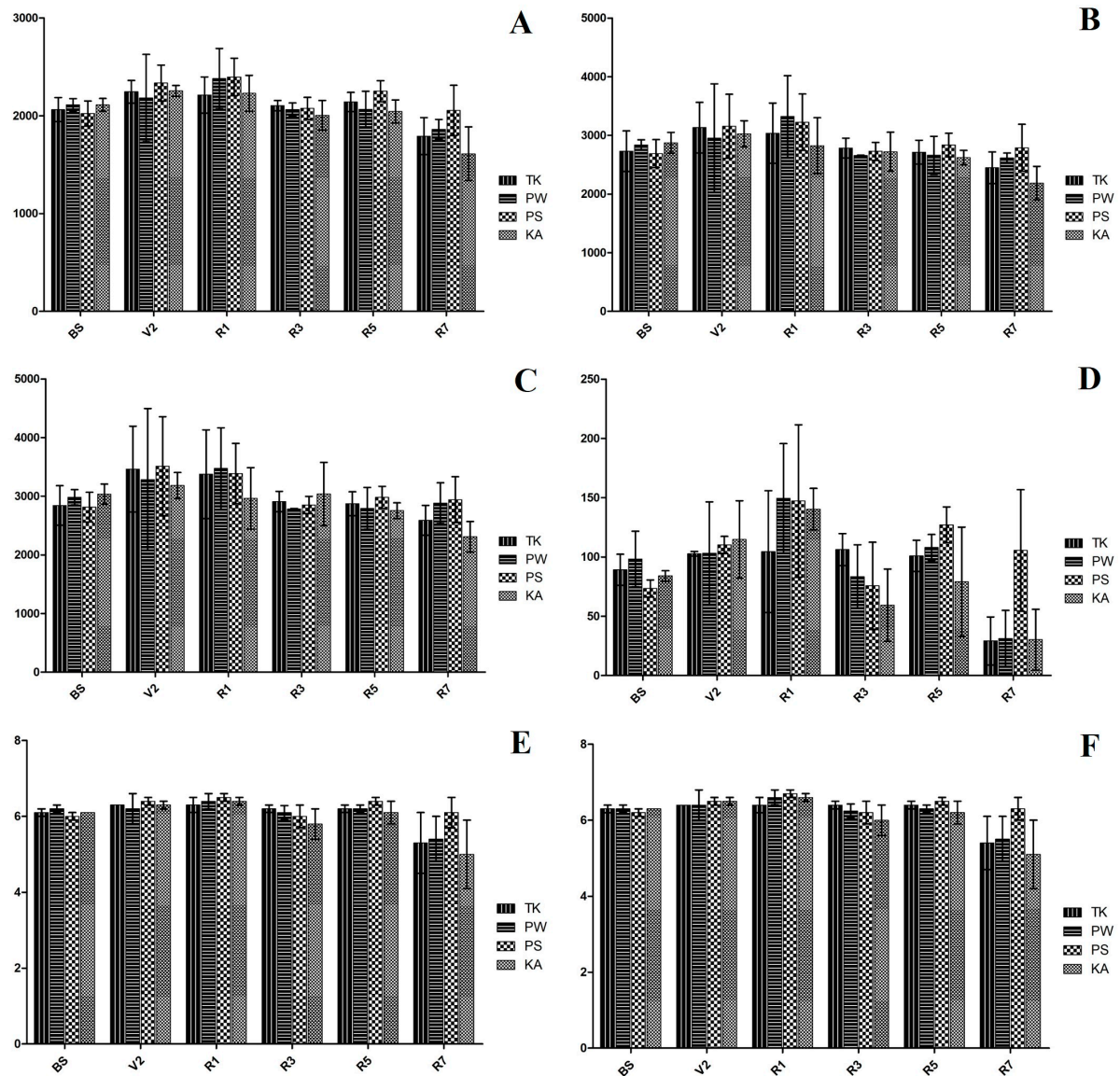
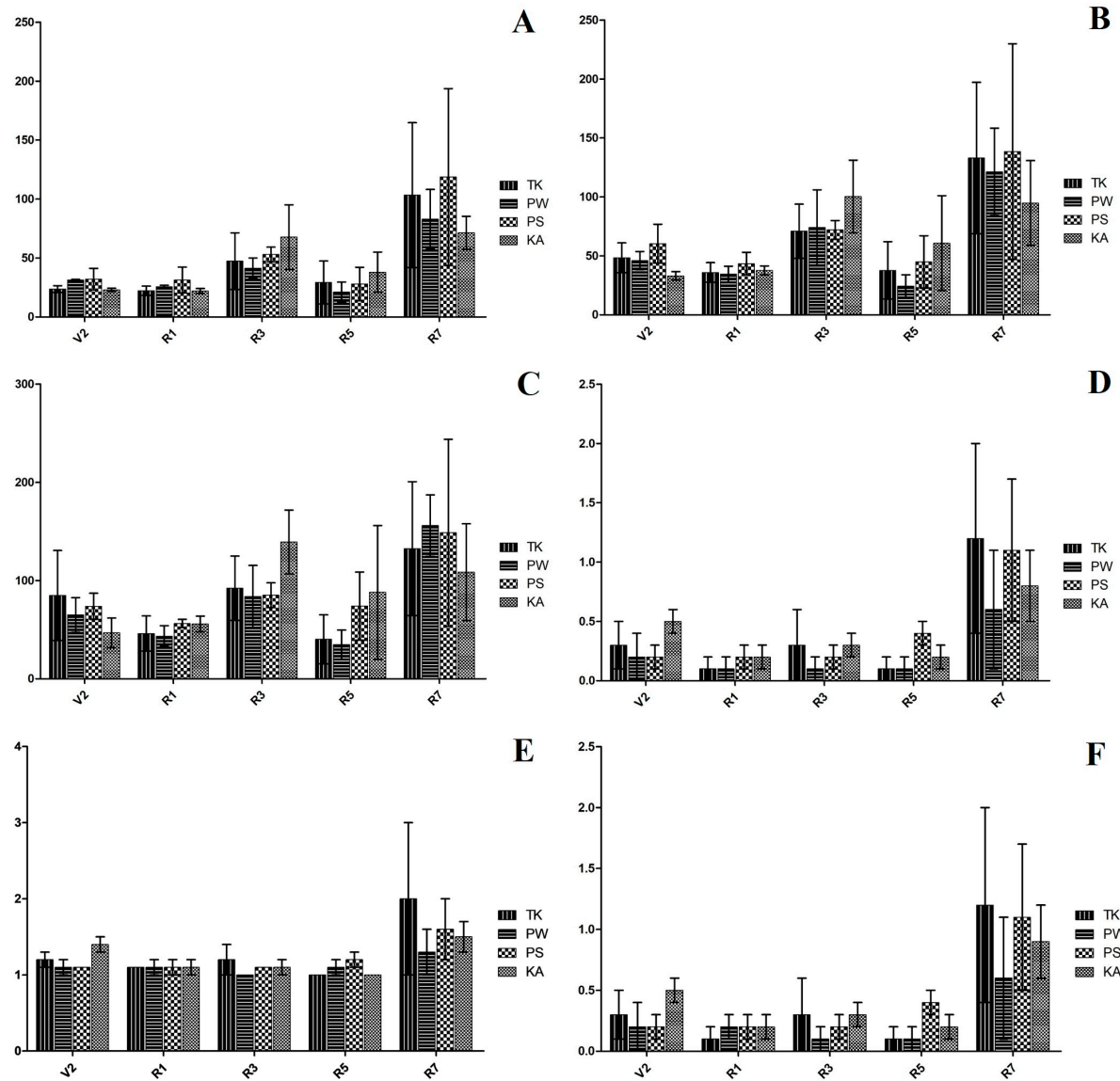


**Figure S1: Bacterial diversity indices of bulk soil and rhizosphere of four soybean varieties**



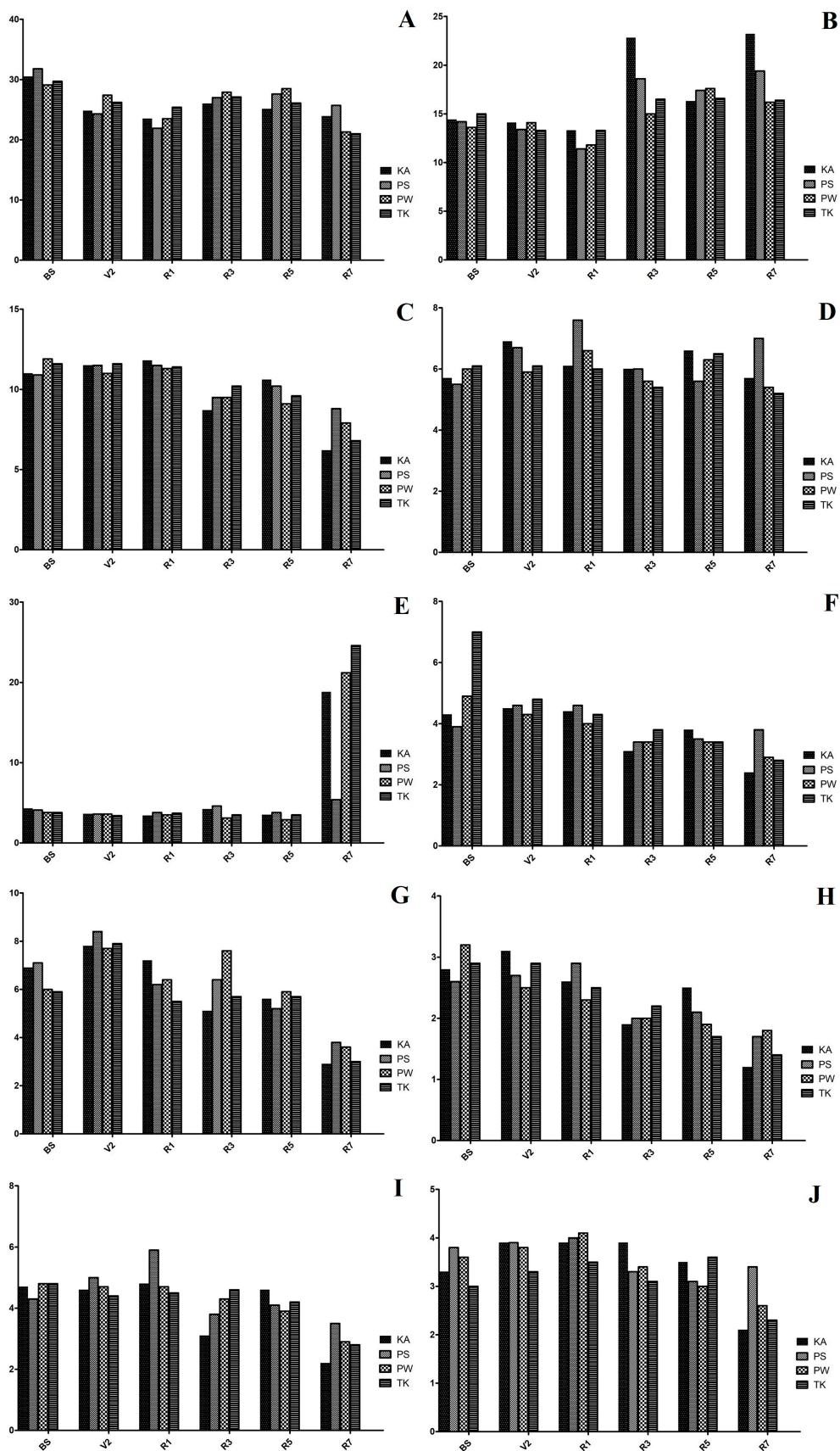
A, Sobs; B, Chao; C, Ace; D, Shannon; E, Invsimpson; F, Npshannon. V2, R1, R3, R5, R7, Growth stage of soybean; BS, Bulk soil before planting 4 varieties of soybean; KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang.

**Figure S2: Bacterial diversity indices of root nodules of four soybean varieties**



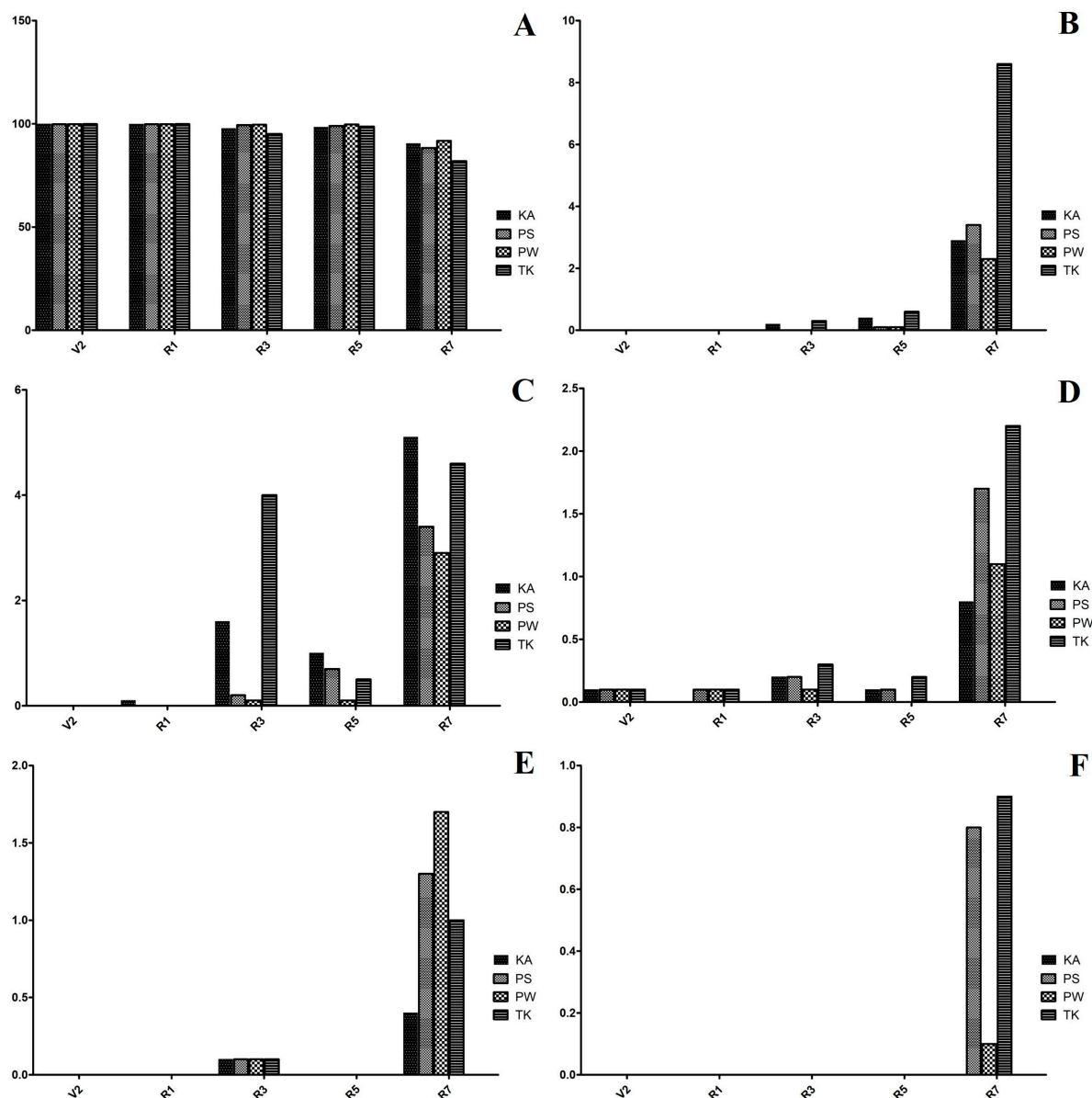
A, Sobs; B, Chao; C, Ace; D, Shannon; E, Invsimpson; F, Npshannon. V2, R1, R3, R5, R7, Growth stage of soybean; BS, Bulk soil before planting 4 varieties of soybean; KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang.

**Figure S3: Influence of varieties and growth stages in the dominant phylum present in bulk soil and rhizosphere of soybean**



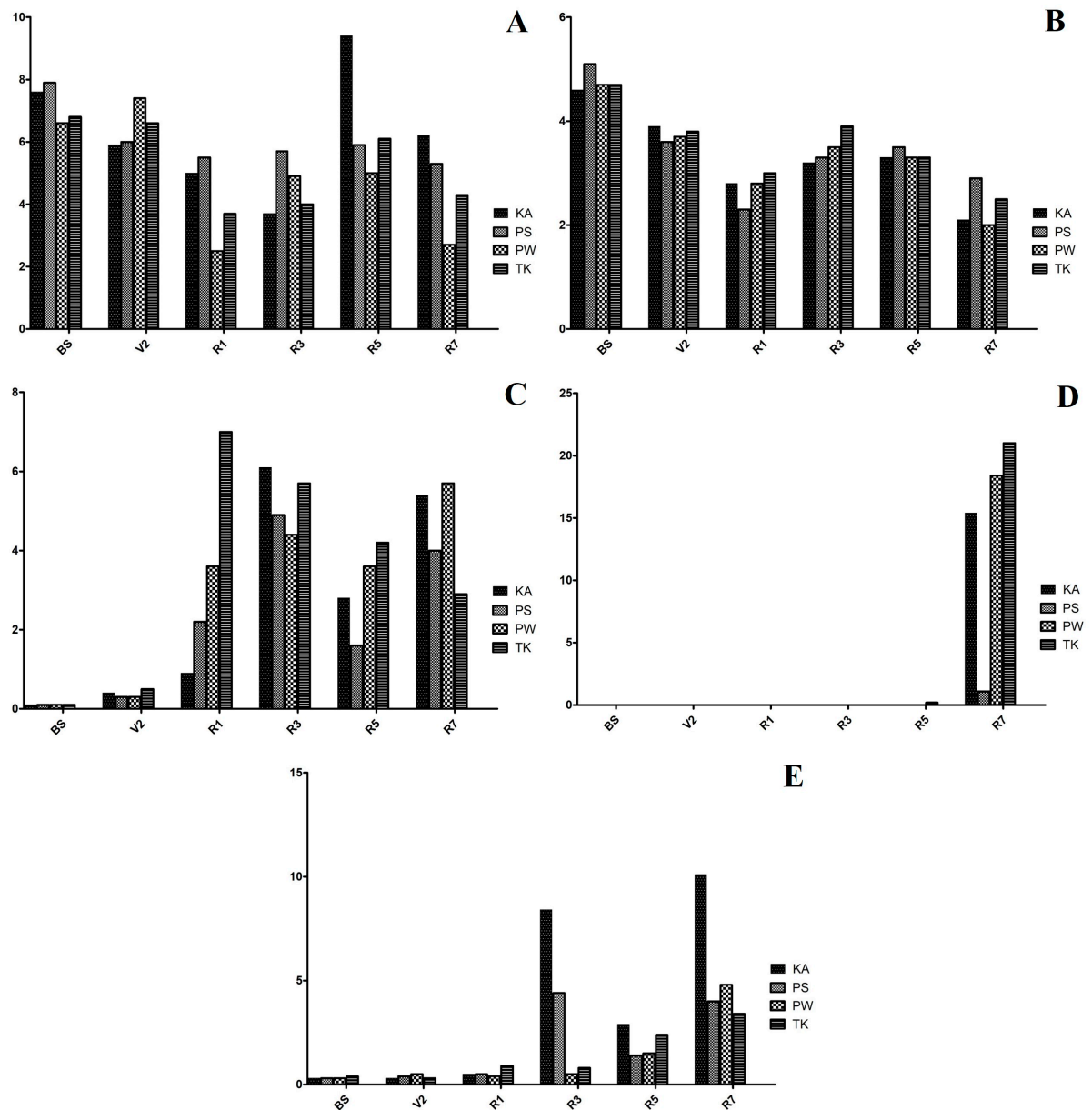
A, *Actinobacteria*; B, *Alphaproteobacteria*; C, *Acidobacteria*; D, *Betaproteobacteria*; E, *Bacteroidetes*; F, *Chloroflexi*; G, *Firmicutes*; H, *Gemmatimonadetes*; I, *Deltaproteobacteria*; J, *Gammaproteobacteria*. V2, R1, R3, R5, R7, Growth stages of soybean; BS, Bulk soil before planting, KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang (4 varieties of soybean).

**Figure S4: Influence of varieties and growth stages in the dominant phylum present in root nodules of soybean**



A, *Alphaproteobacteria*; B, *Bacteroidetes*; C, *Gammaproteobacteria*; D, *Betaproteobacteria*; E, *Actinobacteria*; F, *Verrucomicrobia*. V2, R1, R3, R5, R7, Growth stages of soybean; KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang (4 varieties of soybean).

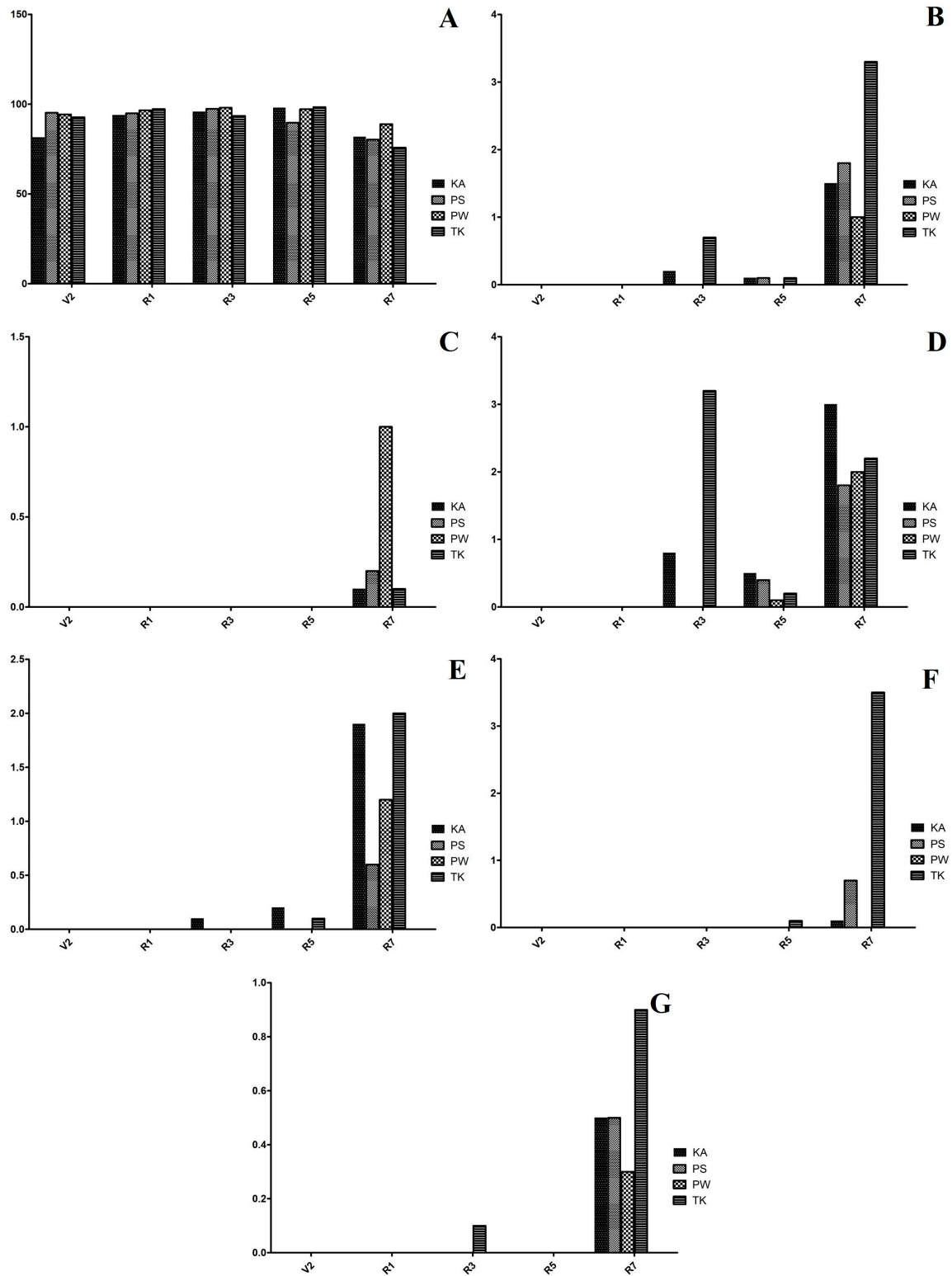
**Figure S5: Influence of varieties and growth stages in the dominant genera present in bulk soil and rhizosphere of soybean**



A, *Arthrobacter*; B, *Spingomonas*; C, *Aeromicrobium*; D, *Flavobacterium*; E, *Bradyrhizobium*. V2, R1, R3, R5, R7, Growth stages of soybean; BS, Bulk soil before planting; KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang (4 varieties of soybean).



**Figure S6: Influence of varieties and growth stages in the dominant genera present in root nodules of soybean**



A, *Bradyrhizobium*; B, *Rhizobium*; C, *Streptomyces*; D, *Enterobacter*; E, *Sphingobacterium*; F, *Flavobacterium*; G, *Achromobacter*. V2, R1, R3, R5, R7, Growth stages of soybean; KA, Kwangan; PS, Poongsannamul; PW, Poongwon; TK, Taekwang (4 varieties of soybean).