in a sandy soil, in a coastal climate of Rostock and in a ryegrass-fertilized soil (Stuttgart) on a very fertile soil and in a sandy soil, winter oilseed rape (OSR) were evaluated each year at both sides. Four seeds of selected species: Echinochloa crus-galli (L) M. Bieb., Echinochloa crus-galli (L), Sisymbrium officinale (L), Solanum muray) were sown in the starting year. For each treatment, there were five replications. Weed species and weed density were measured for ten repeated measurements per plot. Data about the first three replications concerning the crops and their harvest, stability index, and Maximum when the irrigation level was in minimum level, however, highest level of irrigation caused the maximum Unstability of species but levels of irrigation had no significant on dominance index.

In order to study the different levels of irrigation on diversity, density and compound of weed species in corn field, experiment was conducted at Ferdowsi University of Mashhad Research Field (36°15’ latitude, 59°28’ longitude and 985 m elevation). The experiment was based on interval mapping with four levels of irrigation (6130, 7290, 8800 and 12330 m³) and four levels of weed control (complete control, broad-leaves control, grasses control and without control). Weed sampling was done at 4 stages including first, middle and end of critical period weed control and harvest then all species counted separate. The results showed that in different levels of irrigation the weed species were different. At the first time of critical period, the most diversity was in 8800 and 7290 m³ and the minimum diversity was in 12330 and 6130 m³ irrigation levels. At the harvest time, the most diversity was in 12330 and 8800 and 6130 m³ irrigation levels respectively and least diversity within different indexes were in 7290, 8800 and 6130 m³ irrigation levels respectively. Stability index changed at different levels of irrigation. In addition, Maximum when the irrigation level was in minimum level, however, highest level of irrigation caused the maximum Unstability of species but levels of irrigation had no significant on dominance index.