Fusarium culmorum B4 isolate and F. culmorum and nematode susceptible “İkizce” wheat varieties were used. Experiments were carried out under controlled conditions in 250 mL plastic pots containing sterilized soil, with random blocks as 10 replicate designs. The study consists of six different applications; Control (C), Pratylenchus thornei alone (N), F. culmorum alone (F), nematode and fungus were added simultaneously (N+F+), the nematode was one month before the fungus (N+4F) and the fungus was added four weeks before the nematode (F+4N). Initial population density for lesion nematodes was determined as 1000 larvae+adult and fungal pathogen density as 2500 spores/g soil. The plants were evaluated after 10 weeks; 0-4 lesion scale, soil and root total nematode density, reproduction rate, root height and weight, plant height and weight, synergistic factor and cfu. Significant differences were found in the interactions of F. culmorum with root lesions nematodes in a variety of İkizce. The effect of the nematode-fungus interaction on plant growth parameters was negative. It has been seen that what organism infects the plant first is important in terms of disease severity and nematode density. N plant growth parameters were found higher than fungus combined treatments both lesions nematodes. F. culmorum-Pratylenchus penetrans of N, N+4F and F+4N of nematode density were lower than N+F+, but the difference between them were statistically insignificant. Simultaneous nematode-fungus application effected positively P. penetrans development. The lesion scale of P. neglectus-F. culmorum F, F+4N and N+F+ were found 4, while N+4F was 2.6 and the reproduction rate of N+4F and F+4N were lower than N, that the fungus adversely effected nematode development.