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# Using of wheat and barley remains, sponge wastes and animal fertilizer for optimization of precipitation storage systems in semiarid parts of Kohgiloyeh

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Using of wheat and barley remains, sponge wastes and animal fertilizer for optimization of precipitation storage systems in order to find a method for increasing remaining of humidity in soil profile in the semi- arid regions of Kohgiloyeh and Boyerahmad province have been done with 6 treatments and 3 replications and a completely randomized block design from 1380 for 4 years. The treatments included: **A**: Mixing 5 kg of animal fertilizer and soil of pit with 5 cm thickness at the bottom and lower side of pit. **B**: Mixing 5 kg of stover and soil of pit. **C**: Mixing 5 kg of stover and soil of pit with 5 cm thickness at the bottom and lower side of pit. **D**: Mixing 5 kg of stover and soil of pit with 5 cm thickness at the bottom and lower side of pit, using nylon as an insulator at the lower side of pit and sand filter with 10 cm thickness on the surface of pit. **E**: Using sponge at the depth of 20 cm of pit with10 cm thickness, 2 cm of sand and a layer of soil have been poured on the sand. **F**: Control group without any function on the soil of pit. Humidity of soil have been analyzed using mean, Comparison method. The results show that: The highest weighted humidity percentage belong to B, D and E treatments, so that these 3 treatments are significant at level of 1 percent comparing to control group.

**Keywords**: Wheat and barley remains, Profile of soil, Precipitation storage systems, Kohgiloyeh and Boyerahmad province.

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