

不同年限紫花苜蓿（生长）水分利用效率和耗水系数的差异

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摘要:

采用小型蒸渗仪法, 在北京平原区研究了一年生和二年生紫花苜蓿 *Medicago sativa* 水分利用效率和耗水系数的差异。研究表明: 二年生紫花苜蓿的生物产量和经济产量水分利用效率[14.7和17.1 kg/(hm²·mm)]显著高于一年生紫花苜蓿[12.6和14.7 kg/(hm²·mm)](P<0.05); 生物产量和经济产量耗水系数(679和584)显著低于一年生紫花苜蓿(793和682)(P<0.05)。研究表明生长年限对紫花苜蓿的水分利用效率和耗水系数具有影响。

关键词: 紫花苜蓿; 水分利用效率; 耗水系数; 生长年限; 小型蒸渗仪; 北京平原区

Difference of water use efficiency and water consumption coefficient of alfalfa different in growing season

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Abstract:

Difference of water use efficiency (WUE) and water consumption coefficient (WCC) of alfalfa (*Medicago sativa*) between the first growing season and the second growing season was studied in Beijing plain with micro lysimeter. The results showed that the WUE based on biological and economic yields [14.7 and 17.1 kg/(hm²·mm)] of the second growing season were significantly (P<0.05) higher than that of the first growing season [12.6 and 14.7 kg/(hm²·mm)], the WCC based on biological yield and economic yield (679 and 584) of the second growing season were significantly (P<0.05) lower than that of the first growing season (793 and 682). This proved that the growing years affected the WUE and WCC.

Keywords: alfalfa; water use efficiency; water consumption coefficient; growing year; micro lysimeter; Beijing plain

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