THE GROWTH OF SHEEP SORREL IN CALCAREOUS AND
DOLOMITIC MEDIA.\(^1\)

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The presence of sheep sorrel (*Rumex acetosella*) under field conditions is generally conceded to indicate a distinct need of lime. The thriving growth of this weed on soil known to be poor in lime was responsible for the common belief that the plant grows best in an acid medium. However, it is now known that sorrel will flourish in soil that has been treated with lime; hence the viewpoint, now held most generally, that the plant thrives in acid soils because of lack of competition from those plants which are more sensitive to a low content of the alkali-earthy elements. Recent contributions have been made upon this subject by White\(^2\) and by Pipal.\(^3\)

As confirming the findings of the two articles just mentioned and also as demonstrating the parallel effects of limestone and dolomite, the following brief statement is offered, together with the illustrations in Plate 1. This work was carried out by Dr. J. I. Hardy, now of the Wyoming station, under the direction of the writer. It was a portion of a series of pot-culture experiments which were incorporated in a thesis as a part requirement for the degree of Master of Science during the years 1912-13 and 1913-14.

Twenty 8-inch clay pots were used in the work, ten containing limestone in different percentages and ten containing dolomite in corresponding amounts. The pots were twice treated with asphaltum paint in order practically to eliminate porosity, so that they could be imbedded in the ground and thus insure more uniform and more nearly normal temperature.

Clean river sand and limestone or sand and dolomite constituted the only solid material in each pot. Each of the three materials was sifted through a 1-mm. sieve. Those portions which passed through

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