THE EFFECT UPON YIELD OF CUTTING SWEET CLOVER
(MELILLOTUS ALBA) AT DIFFERENT TIMES AND AT
DIFFERENT HEIGHTS

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In the late spring of 1931, 65 contiguous plats, each measuring 6 by
6 feet and surrounded by an alley 18 inches wide, were staked out in a
sweet clover field on the agronomy farm of the West Virginia Agricul-
tural Experiment Station. Thirteen different cultural treatments
including the check were planned. Four treatments and the check were
arranged in the form of a Latin square. These treatments con-
sisted of cutting the sweet clover at different dates in 1931, the same
year the crop was seeded. The other eight treatments occurred on an
adjacent area 61.5 by 39 feet, each treatment being represented by
five plats distributed at random. On this area the treatments con-
sisted of cutting the sweet clover at different heights and at different
stages of growth the second year after seeding.

In Table 1 are shown the data obtained from the Latin square ar-
rangement. Beginning with August 1, 1931, the sweet clover on five
plats was cut at an approximate height of 6 inches with an ordinary
hand sickle at each cutting date mentioned in column 1. In columns 2
and 3 the average approximate height of plants on May 25 and June
30, 1932, are shown.

<table>
<thead>
<tr>
<th>Date cut in 1931</th>
<th>Average height, inches</th>
<th>Average yield of dry hay, grams (less than 1% moisture)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May 25</td>
<td>June 30</td>
</tr>
<tr>
<td>(1) Not cut.....</td>
<td>27.4</td>
<td>49.2</td>
</tr>
<tr>
<td>Aug. 1</td>
<td>23.2</td>
<td>44.6</td>
</tr>
<tr>
<td>Aug. 20</td>
<td>20.8</td>
<td>45.2</td>
</tr>
<tr>
<td>Sept. 10</td>
<td>20.4</td>
<td>44.6</td>
</tr>
<tr>
<td>Sept. 30</td>
<td>19.4</td>
<td>43.0</td>
</tr>
</tbody>
</table>

It is apparent that the plants on the five plats not cut during
the first season averaged somewhat taller than the others; also that the
range in average heights taken on May 25 was slightly greater than
that of the later measurements. The plants on the untreated plats
showed a more vigorous growth during the entire season of 1932. This
condition was also reflected by the stand of weeds. Buckhorn, major
plantain, sheep sorrel, and white top were present in plats cut on
September 10 and September 30 but were entirely absent in the plats
that were not cut the first season.

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