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**Production of Oil from Plant Material**

**By Professor E. Berl**

Carnegie Institute of Technology

Interesting information is given about the oil situation in this country in the excellent article by Dr. P. K. Frolich, past president of the American Chemical Society. Dr. Frolich states that the time is not far off when oil products should be obtained from sources other than natural oil, for example, by the hydrogenation of coal or carbon monoxide produced from coal or from natural gas or from oil shales. Not all experts in this field agree with statements about the coming scarcity of oil within the boundaries of the United States.

In previous communications to Science, I have stated that carbohydrates which are contained in farm products, wood, algae, etc., and which are formed by nature in enormous amounts and with greatest ease (see Table 1) can be converted into liquid fuel.

According to such statistics, at the present rate of oil extraction, the cheap oil in this country would be gone in about fourteen years; therefore, it is imperative to find new sources of oil.

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**Table 1**

<table>
<thead>
<tr>
<th>Plants</th>
<th>2.7 x 10^11 metric tons of C content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual production of cellulose and other carbohydrates</td>
<td>3 x 10^9</td>
</tr>
<tr>
<td>Crude oil reserves in U.S.A.</td>
<td>2.6 x 10^8</td>
</tr>
<tr>
<td>Crude oil reserves in world</td>
<td>4.4 x 10^8</td>
</tr>
<tr>
<td>Annual oil production in U.S.A.</td>
<td>1.9 x 10^8</td>
</tr>
<tr>
<td>Annual world oil production</td>
<td>2.9 x 10^8</td>
</tr>
</tbody>
</table>

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2. W. Pratt, Oil and Gas Jour., January 30, 1944, p. 78.