

*Plants: The Potential for Extracting
Protein, Medicines, and Other Useful
Chemicals*

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Plants _____
**The Potentials for Extracting
Protein, Medicines, and
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Workshop Proceedings



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Preface

The Workshop Proceeding, *Plants: The Potentials for Extracting Protein, Medicines, and Other Useful Chemicals*, was prepared in response to a request from the Senate Committee on Agriculture, Nutrition, and Forestry that OTA examine technological opportunities for commercially developing plant extracts. The proceeding describes some opportunities and constraints of commercially developing plant extracts, examples of some work being done in this field, and workshop participants' conclusions and recommendations concerning the Government's role in the area. Ten technical papers and four overview papers are included in the proceeding.

Developing new crops or plant products offers a wide range of potential benefits to the United States and developing countries. Crop diversification and new product development in the United States may substitute domestically produced goods for petroleum and other imports (including strategic and essential industrial materials); provide useful new consumer products; increase productive use of land resources, especially in marginal farming areas; generate employment in areas of underemployment or unemployment; and provide plant-derived biocides that cause little long-term ecological damage as alternatives to certain synthetic pesticides. In developing countries, new crops or new plant-derived products may help stimulate cottage industries, increase local and national self-sufficiency, and perhaps provide new export industries. This proceeding addresses these opportunities as well as constraints to and possible impacts of their development.

In regard to protein extraction from tobacco, the proceeding states that the risk involved in investment in this technology is perceived to be high, and a considerable concern exists that products would have limited marketability because of:

- the health concerns that some attach to tobacco, and
- the changed character of cigarettes and chewing tobacco made from protein-extracted tobacco may not satisfy consumers.

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