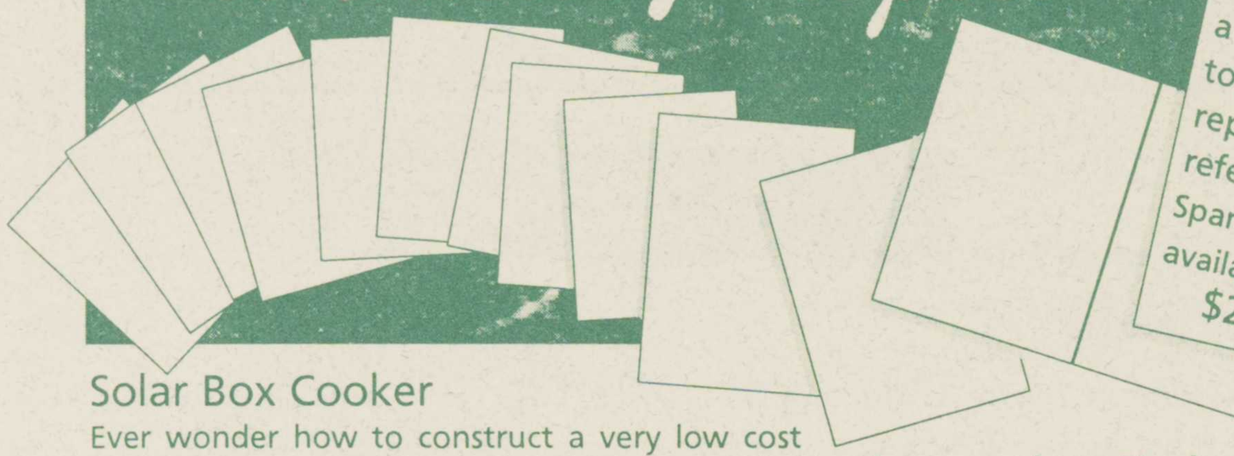
Technical Papers



ASPI Technical Series

Focusing on important appropriate technology subjects, each paper brings a wealth of information and resources together into a concise, understandable report. Many papers include diagrams, references, and helpful illustrations. Spanish (SP) and French (FR) translations available where indicated.

$2.00/each — item TPS $60.00/set

Solar Box Cooker
Ever wonder how to construct a very low cost food cooker using materials at hand? Here's how. Cook with the sun! (SP, FR) *item TP1*

Compost Toilets
Diagrams and describes four models of dry composting toilets, and the rationale for building them. (SP, FR) *item TP2*

Cisterns
Compact information on building and maintaining these low-cost water systems in an age of water scarcity. (SP, FR) *item TP3*

Solar Greenhouses
A descriptive narrative on how to construct and best utilize this environmentally sound source of domestic food and supplemental solar heat. (SP, FR) *item TP4*

Cordwood Buildings
Succinctly describes why and how to build these beautiful, simple and energy efficient structures from local materials. (SP) *item TP5*

Solar Food Dryer
Condenses ASPI's former 16-page Dryer plans to a compact, handy flyer with two added pages of basic solar food drying information. (SP, FR) *item TP6*

Year-Round Gardening
Tips from our experience, including methods to extend the growing season on both ends and useful hints for all gardeners. *item TP7*

The Yurt: An Excellent Low-Cost Home
You can adapt this versatile structure to your surroundings. We tell you why. With references for additional information. (FR) *item TP8*

Breadbox Solar Water Heaters
A must for energy savers — with small expenditure of money and effort! Illustrates and discusses three models. *item TP9*

Nature Trails
How to plan, build, use, and maintain trails for the public. *item TP10*

Composting for Gardens
For the beginner who wants to build productive soil using organic wastes. *item TP11*

Contraflow Masonry Heaters/Ovens
Time-tested technology - now available for low-cost and efficient home heating. *item TP12*

Organic and Intensive Gardening
Commercial fertilizers and chemical pesticides are unnecessary with organic techniques. *item TP13*

Rural Solar Photovoltaic Use
Power buildings and pathway lights, electric fencing, exhaust fans, and more using Photovoltaics. *item TP14*

Appropriate Technology Information Systems
AT resources demystified: information sources, computer networking, library setup, and more. *item TP15*

Forest Preservation Techniques
Limited use programs, tree plantings and diversification, advocacy, organizing, and monitoring. *item TP16*

Coexisting with Wildlife
Bio-regional assessment, "off-limits"/controlled hunting areas, feeding/habitation areas, and garden protection. *item TP17*

Rural Waste Recovery
Ways to collect, sort and reuse all rural waste materials to minimize landfilling. *item TP18*

Water Purification Techniques
Examines commercial/homemade filter systems and testing for water purity. *item TP19*

Aquaculture
Raising fish in ponds, tanks and cages for domestic use and markets. *item TP20*

Quilted Insulated Shades
Step-by-step instructions for creating a beautiful, energy-saving window cover. *item TP21*

How Much Do You Mulch?
The what, why and how of successful mulching practices. *item TP22*

Appalachian Edible Wild Plants
Gather wild herbs and greens, and cultivate native Appalachian species for food. *item TP23*

Root Cellars
Create a space for quality preservation of food at the lowest cost. *item TP24*

Drip Irrigation Systems
Advantages and disadvantages of drip irrigation systems, equipment, and ethical considerations. References. 6 pp. item TP25

Alternative Pest Control
Rick Besson outlines successful pest control, properties of desirable insecticide (biological and botanical). References. 7 pp. item TP26

Soils - An Overview
Demetrio P. Zourarakis examines the genesis and evolution of soils, morphology, organic matter, plant nutrients, and nutrient cycles. Extensive references. 12 pp. item TP27

Alternative Forest Products
Forest products overview by *Deborah Hill*; Wild greens and medicinal plants by *Lucille Stewart*; and gathering wild seeds by *Flo and Maynard Hacker*. References. 8 pp. *item TP28*

Seed Saving
Describes plant reproduction (plus breeding - business considerations), and seed saving tips in harvesting; isolation distances for common cultivars. References/resources. 5 pp. *item TP29*

Artificial or Constructed Wetlands
Details the building of the ASPI's demonstration wetlands, giving current State regulations, and plant listing for wetlands. 4 pp. *item TP30*

Pollination
Ernie Muhly discusses the delicate and necessary balance between flowers and insects; with a listing of notable American nectar and pollen plants, rural and urban. 13 pp. *item TP31*

New Technical Papers:

The Practice of Ecoforestry. *Part 1.* Inventory and Description.
Paul Kalisz describes simple and effective tools and techniques for collecting the data required to ecologically restore and manage hardwood forest ecosystems; with an introduction to the principles and jargon used in forest and ecosystem inventories. *item TP32*

Part 2. Ecological Restoration.
Paul Kalisz describes practical concepts and techniques that may be used to restore and protect the health and biodiversity of native forest ecosystems; illustrates the use of inventory data in field practices; and principles and jargon used in ecological restoration. *item TP 33*

Part 3. Tending and Harvest.
Paul Kalisz describes practical concepts and techniques used to tend forests, and grow and harvest forest products, *when biodiversity, restoration, and forest health protection come first*; illustrates the use of inventory data in field practices; introduction to principles and jargon of forest tending, or silviculture. *item TP34*

Sustainable Logging and Lumber Production.
Gary Anderson discusses forest management philosophy, and practical aspects such as directional felling, skidding with horses, band-saw milling, solar kiln drying, start-up costs of sustainable logging operations, and the economic advantages of selling lumber versus logs. *item TP35*

Mushroom Culturing in Appalachia.
Ernie Muhly examines mushroom ecology, their potential for cultivation and harvest in the wild, and as an alternative woodland cash crop. *item TP36*

Pressed Earth Blocks: An Inexpensive Building Material
Thom Price discusses the pros and cons of PEB's and techniques for testing soil to make, cure, and build with them, as well as the costs of such construction. 8 pp. *item TP37*