Technical Papers

Also coming soon...
- -Solar Outreach for Third World People
- -Eco-Forestry IV
- -Vermiculture
- -Small-Town Demonstration

ASPI Technical Series

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

$2.00/each $70.00/set TPS

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

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

Cisterns
Compact information on building and maintaining these low-cost water systems in an age of water scarcity. (SP, FR) *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) *TP4*

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

Solar Food Dryer
ASPI's Food Dryer plans in a compact, handy flyer with basic solar food drying information. (SP, FR) *TP6*

Year-Round Gardening
Tips from our experience, including methods to extend the growing season on both ends and useful hints for all gardeners. *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) *TP8*

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

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

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

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

Organic and Intensive Gardening
Chemical pesticides and fertilizers are unnecessary with these organic techniques. *TP13*

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

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

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

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

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

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

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

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

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

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

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

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

Alternative Pest Control
Rick Besson outlines successful pest control, properties of desirable insecticide (biological and botanical). References. 7 pp. *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. *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. *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. *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. *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. *TP31*

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

Part 2. Ecological Restoration.
Practical concepts and techniques to restore and protect the health and biodiversity of native forest ecosystems; illustrates inventory data use in field practices; and principles and jargon used in ecological restoration. *TP 33*

Part 3. Tending and Harvest.
Practical concepts and techniques used to tend forests, and grow/harvest forest products, *when biodiversity, restoration, and forest health protection come first*; inventory data in field practices, and principles and jargon of forest tending, or silviculture. *TP34*

Sustainable Logging and Lumber Production.
Gary Anderson explores forest management philosophy and it's practical aspects, such as skidding with horses, solar kiln drying, selling lumber vs. logs, and start-up costs of sustainable logging operations. *TP35*

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

Pressed Earth Blocks: An Inexpensive Building Material
Thom Price discusses pros and cons of PEB's and techniques for testing soil to make, cure, and build with them. 8 pp. (SP) *TP37*

Ginseng in Appalachia
David Cole surveys the growing and marketing of ginseng, and the wild or virtually wild variety in Appalachia; good hints for better production and sales. *TP38*

"Elbow Torch" Efficient Wood Cooker
Mark Schimmoeller shows how to build a small, low-cost and highly efficient wood-burning cooking stove; diagrams. (SP) *TP39*

ASPI Solar House
Joshua Bills looks at our 18-year old solar-powered home, examining space and water heating, compost toilets, solar greenhouse, design, cost, building materials and modifications, and advantages and disadvantages. 6 pp. *TP40*

Humanure
Jack Kieffer, SJ shares results of research on humanure and composting products at ASPI, discussing efforts to make human compost safe for garden use; table and references. *TP41*