



HOW TO SUN DRY YOUR FOOD



Includes: Complete Plans for a Solar Food Dryer
and 27 Delicious Southwestern Recipes



SOLAR DESIGN AND ANALYSIS
MARK CHALOM, ARCHITECT
FIFTY TWO CALIMO CIRCLE
SANTA FE, NEW MEXICO 87505
(505) 983-1885 CHALOMM@GMAIL.COM

Self Reliance Foundation

Las Trampas in the Sangre de Cristo Mountains of New Mexico—home of the Self Reliance Foundation.



Purpose

The Self Reliance Foundation is a non-profit educational organization whose primary purpose is to demonstrate ways people can live better by combining traditional lifestyles with ideas from modern appropriate technology.

The Foundation attempts to do this by producing educational films and a television series of which its 1980 production: "SUN DRIED FOODS" was the pilot.

SUN DRIED FOODS and its Spanish language version: "COMIDA SECA POR EL SOL" documented the Lopez Family of Las Trampas who use a blend of traditional methods including basic techniques of solar energy to naturally grow and preserve nearly all of their own food. This book details those methods. It also includes a recipe section and plans for a solar food dryer.

The Foundation also publishes teaching kits, slide shows, and other materials. An order form and information about our other film projects like HOW TO BUILD A SOLAR FOOD DRYER, SOLAR SCHOOL PROJECTS, HOME WEATHERIZATION NOW!, WATER RIGHTS: ACEQUIAS DEL NORTE, and STORYTELLERS: HISPANIC CUENTEROS can be found in the rear of this book.

The Foundation is supported by tax deductible contributions from individuals, as well as by grants and contracts from business and governmental agencies. Materials are sold to pay for the cost of reproduction and to support new projects. All contributions are gratefully accepted.

EDITOR:

Jeff Kline

WRITERS:

Judy Goldberg, Eve Romero, Barry Dornfield,
Jake Wilson, Juan Lopez, Tom McDonough

PRODUCTION:

Florence Vigil

PHOTOGRAPHY:

Juan Lopez, Judy Goldberg, Tom McDonough

FRONT COVER PHOTO:

Jeff Kline

BLUEPRINTS & DESIGN

OF THE

SOLAR FOOD DRYER:

Mark Chalom

LAYOUT DESIGN:

Glen Strock

SOLAR FOOD DRYER MATERIAL LIST

*NOTE You may want to use scrap or recycled materials.

QUANTITY	SPECIFICATIONS	WHERE USED
1½ sheets	plywood (½" AD grade or better)	Cabinet and collector
9'	lascolite (from 4' wide roll) <i>(acrylic fiberglass glazing material)</i>	Cabinet and collector
16'	2" x 4" milled s4s	Cabinet
20' or two 10' pieces	1" x 4" milled s4s	For cabinet back legs.
16' or two 8' pieces	1" x 8" milled s4s	To be ripped into 1"x4" and 1"x3½" for collector outer and inner legs.
24'	1" x 2" trim	Side trim
22'	1/4" x 1½" molding	To hold down lascolite
48'	1" x 1" (actually 3/4" x 3/4")	For tray ledges
4'	1" x 4" midrail	For cabinet
10'	1" x 1" (actually 3/4" x 3/4")	Two collector rails and 8 blocks.
1 sheet	2' x 10' expanded metal lath for two layers. In cold climate you can use three layers - so buy an extra sheet.	For collector plate radiator
18" 1' x 4'	fly screen	For collector intake vent and cabinet exhaust vent.

QUANTITY	SPECIFICATIONS	WHERE USED
6	hexagon head bolts and nuts 1/4" x 2"	To bolt detachable legs to cabinet.
12	1/4" washers	For hex bolts and nuts.
20	2" flathead woodscrews (#12's or 14's)	Reinforce the frame.
6	1 1/2" weatherable butt hinges	For doors and vents.
1/2 pound	1 1/4" finishing nails	Secure trim to cabinet.
20	roofing nails	To secure metal lath against bottom of collector box.
2	Ball type cabinet latches	For top and bottom of inner door
1	tube of silicone or rubber butyl caulk	Seal lascolite to collector cabinet.
1	small bottle of waterproof wood glue or construction adhesive.	Strengthen double legs and frame and attach tray ledges.
1	can primer	To prime the metal lath
1	can flat black spray paint or flat black liquid paint	For metal lath and inside of collector box.
1 quart	Any color latex house paint or clear seal	To seal exterior wooden surfaces of finished cabinet, collector and legs.

MATERIALS TO MAKE ONE TRAY

*NOTE Multiply by number of trays desired.
Cabinet will hold up to 12 trays.

QUANTITY	SPECIFICATIONS	WHERE USED
12'	1" x 2"	Frame for screen
4' x 2'	nylon mesh or screen	drying screens
12'	screen molding (1/8" x 1/2")	Secure screen to frame
8	1½" finishing nails	To nail tray frame
1 box	3/8" light duty staples	Staple screen to frame

-NOTES-

TOOLS NEEDED

hand saw; or skill saw; or table saw

hammer

tape measure

framing square or tri-square/combination square

screw driver

wrench for 1/4" hexagon head bolts

tin snips or metal shears

drill (hand or power)

drill bits: 1/4" for hexagon bolts and 3/16" for guide
holes for #12 or #14 woodscrews.

staple gun

paint brush

caulking gun

-NOTES-