

A wooden beehive house with a colorful window display. The house is made of light-colored wood and has a gabled roof. The window is filled with many small, colorful boxes, each representing a different style of beehive. The house is surrounded by greenery and a wooden deck in front.

# The LAAZY Hive

A-Z Style  
Hives  
From  
Langstroth  
Components

Presented by  
Jeannie Saum  
Groveport, Ohio

Funded by a  
grant from  
NC-SARE

# Slovenia Climate, Habitat



# Cradle of Beekeeping



# Inventor



**Anton Znidersic -1874-1947**

# AZ Bee Houses



# Inside Beekeeping





**...and other things**



...or this.



# Design - Same components as Langstroth

- **Fixed size**
- **Outer back door**
- **Inner screen doors on boxes**

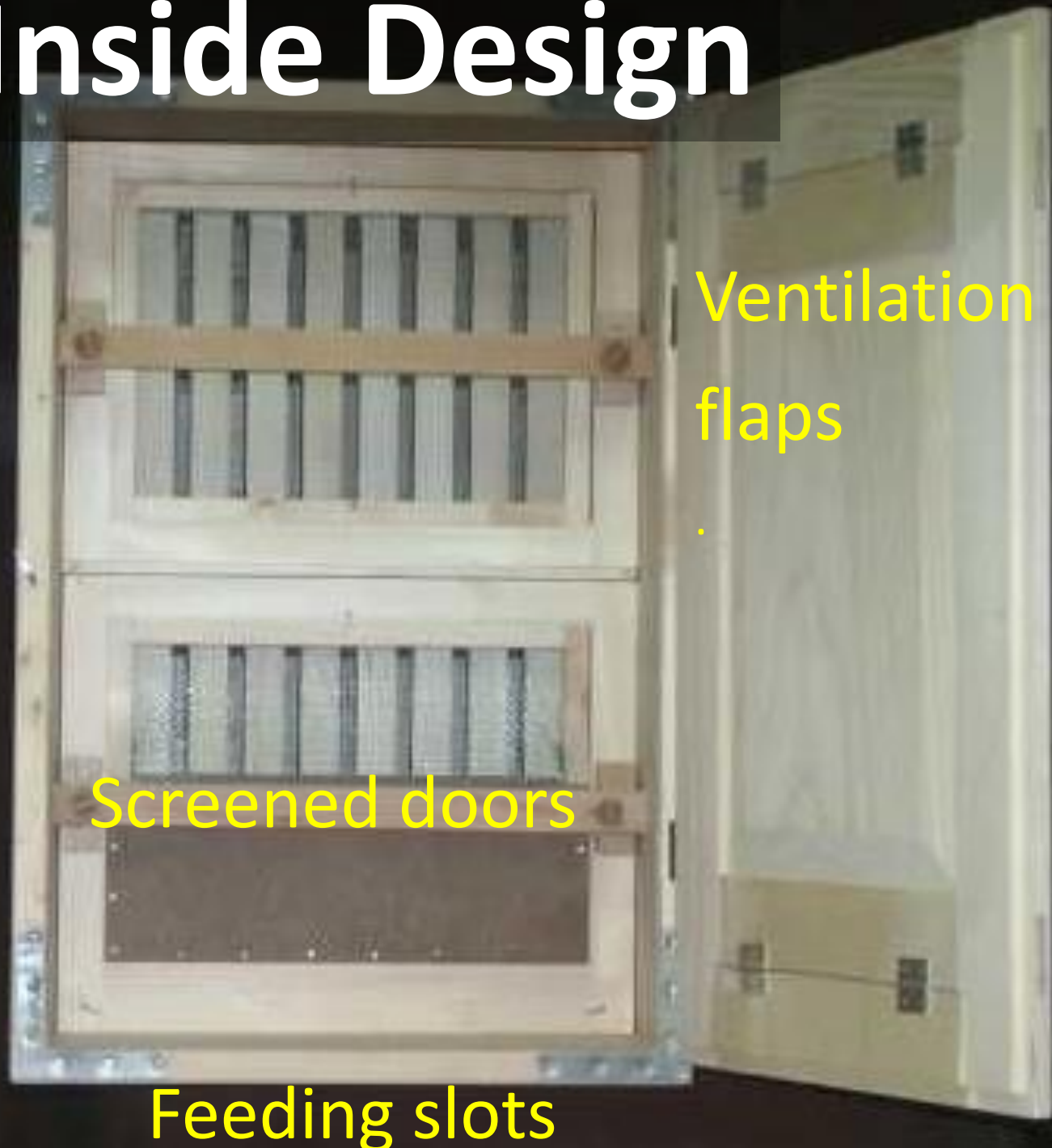


# Box Interior

- Frames slide on metal rods
- Solid, slotted or queen excluder dividers



# Inside Design





# **Inside Building**

- **Rear door - access to the frames on all levels**
- **Can sit or stand**
- **Disturb only one frame at time**

# Outside

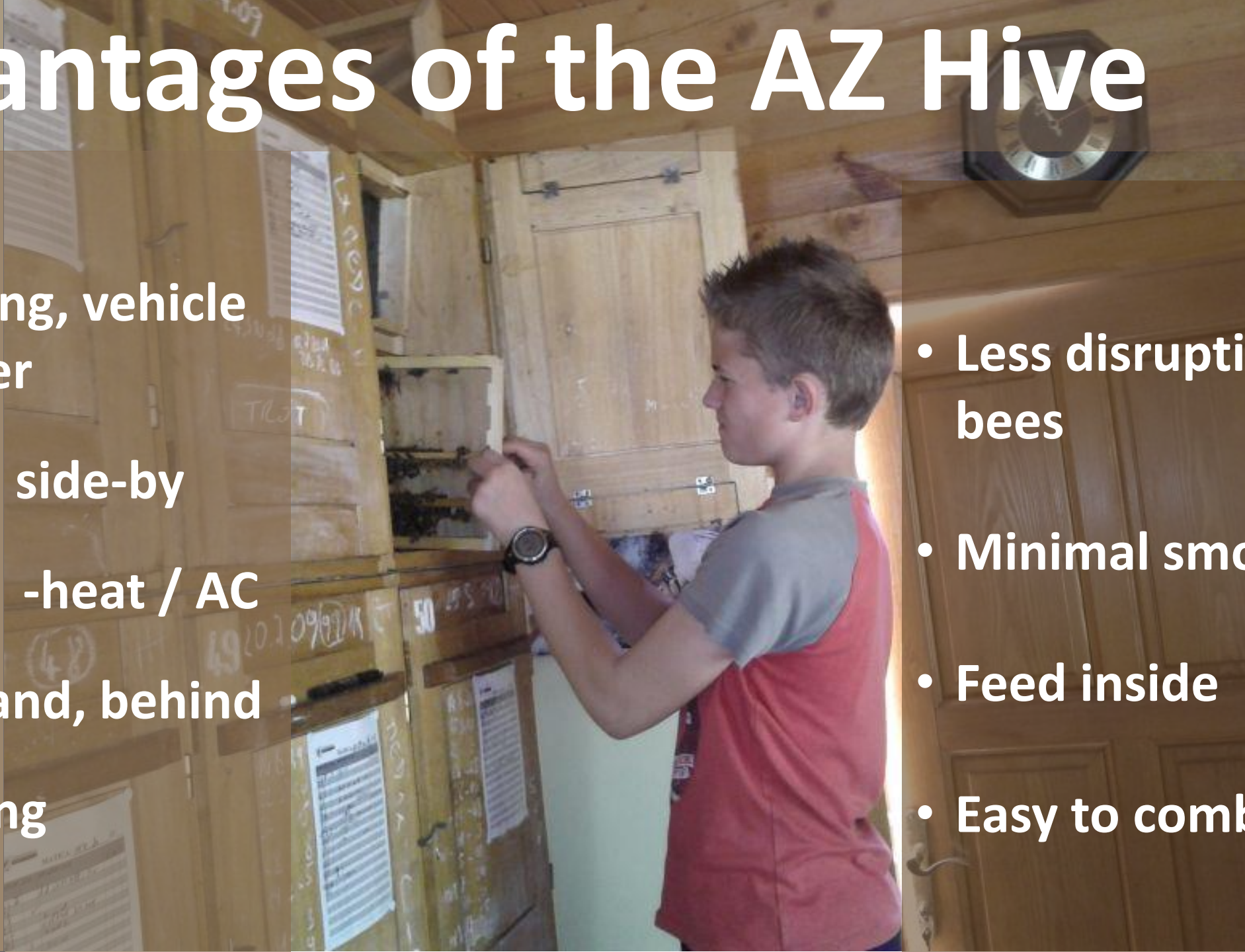
- Opening at each level
- Closeable
- Paint only front
- Usually folk art



# Advantages of the AZ Hive

- In building, vehicle or shelter
- Stacked, side-by
- Building -heat / AC
- Sit or stand, behind
- No lifting

- Less disruptive to bees
- Minimal smoke
- Feed inside
- Easy to combine



# Disadvantages of the AZ Hive

- Fixed size
- Swarming
- Manage by splitting
- Propolis
- Longer tool needed
- Frequent inspections



# Beekeeping In Slovenia

Slovenia -25 Beekeepers for every 5,000 people  
USA - 1 beekeepers for every 5,000 people

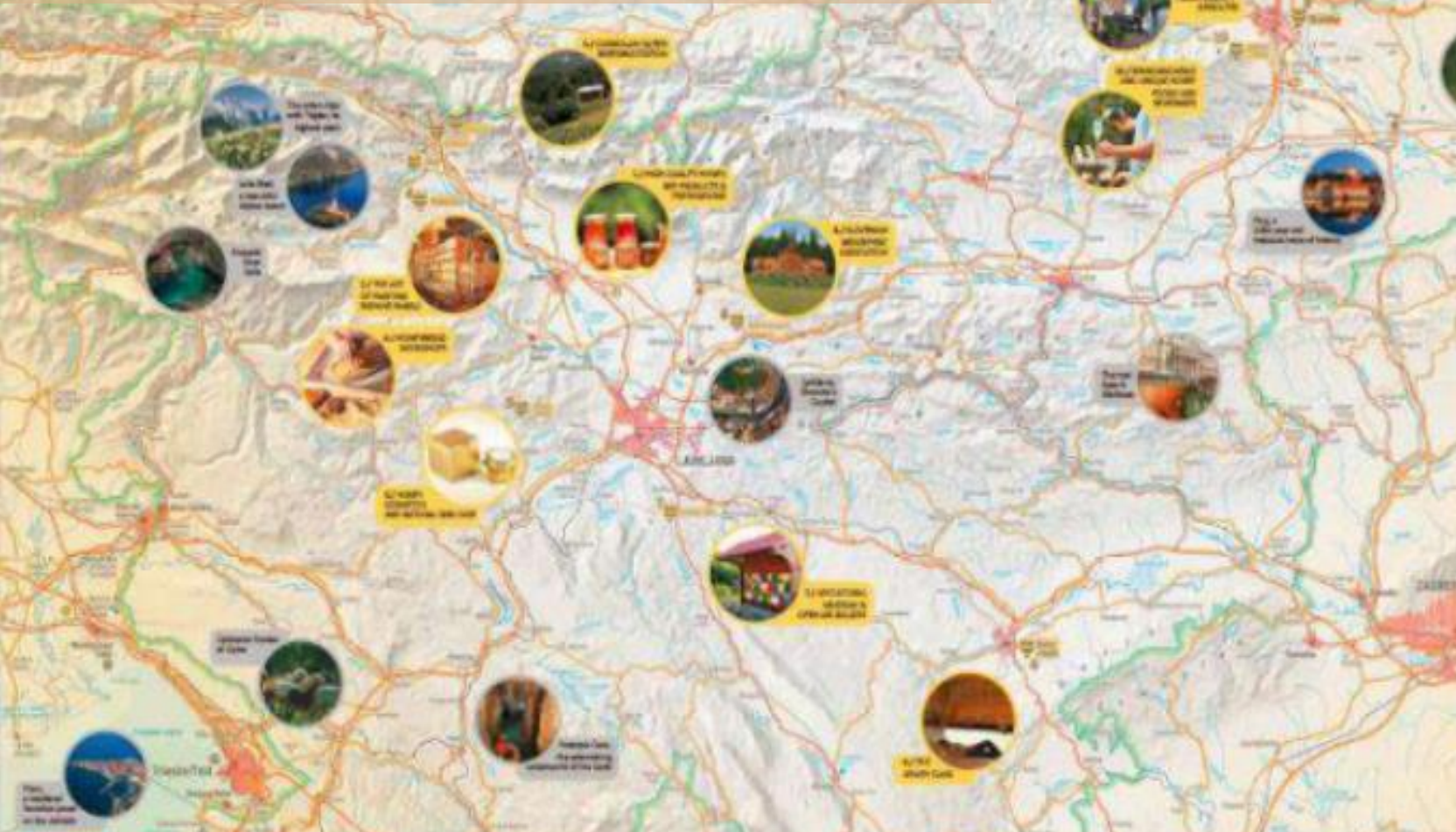
- Govt. support, regulation, treatments
- Carnolians only
- World Bee Day
- Plant only nectar producing flowers





# Api Experiences in the Land of Excellent Apiculture

# Apitourism



## Did you know?

The honeybee's wings stroke 11,400 times per minute, thus making their distinctive buzz.

How many eyes does a honeybee have? Five.

In order to produce 1 kg of honey, about 4 million flowers must be visited.

One bee colony can produce up to 150kg of honey per year.

A honey bee flies at about 24 km/h (15 mph).

A pioneer of modern beekeeping, Slovenian (Carniolan) apiarist and painter Anton Jeras (1734-1773) was employed as a teacher of apiculture at the imperial court of Maria Theresia in Vienna.

One of Slovenia's most popular songs, written by Ljudež Šiš, is called Čebelar - Beekeeper.



## ApiRoutes

**Antvorski Town Agency - Apitourism**  
With extensive knowledge and appreciation in recognizing the needs and desires of its clients, the Antvorski Travel Agency is a trusted partner and provider of the Apitourism experience. Through its provision of comprehensive services - from transfer and accommodation arrangements, to the organization of guided tours, seminars and training, Apitourism is creating new value in the creation of travel experiences. Through operations predicated on social responsibility, partnership in sustainable development, our highly motivated and talented team is always happy to assist you in creating your own API experience!

## ČZS - Slovenian Beekeepers' Association

The Slovenian Apiculture Centre at Vrtača near Tolmin hosts the headquarters of the national Association, the beekeeping advisory service, together with the offices of the Slovenian Čebelar magazine. There is also a laboratory, specialist library, a shop selling beekeeping equipment and products as well as a restaurant. The Centre's attractions include an educational

path, a presentation of beekeeping and medicinal plants together with some beautiful flowers in the unique Carniolan style.

Feel  
FEEL SLOVENIA  
Api

- Honey, propolis, beeswax, pollen, venom harvested

# Honey Massage





**Sleep in the Bee House**



MEAD  
MUSEUM

# THE WEEK OF SLOVENIAN MEAD

October 10th-14th 2017





# Hive-Air Treatment

# Honeycomb Accommodations



# Success in Slovenia

- NO colony collapse
- NO massive colony loses
- Government support helps



# Success in Slovenia



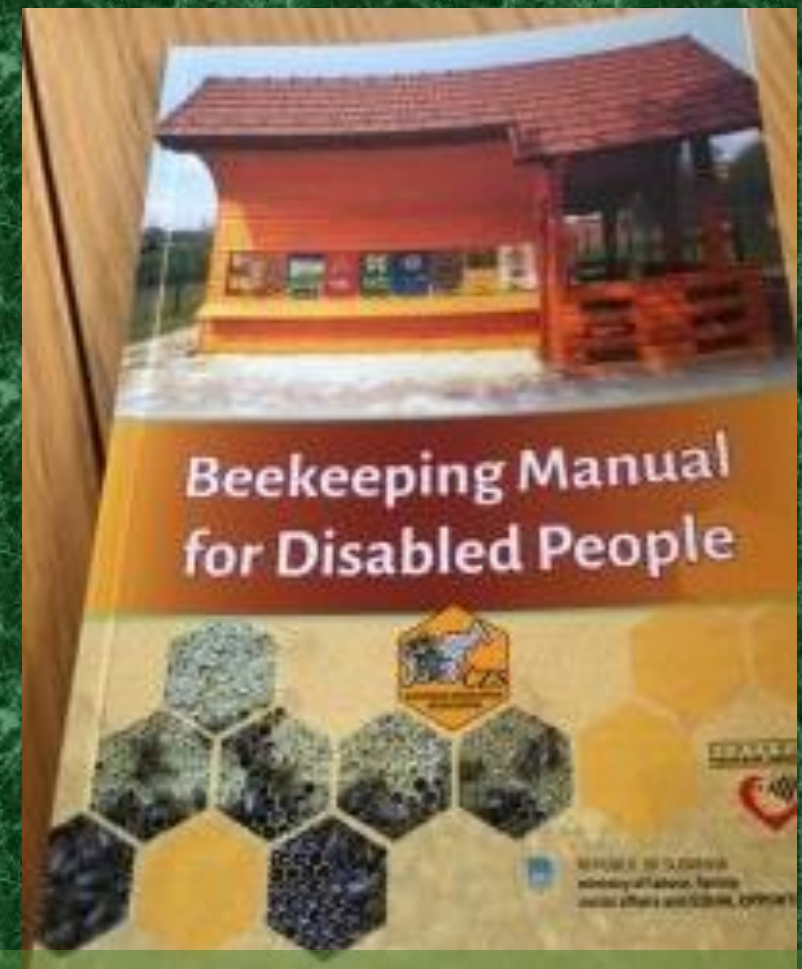
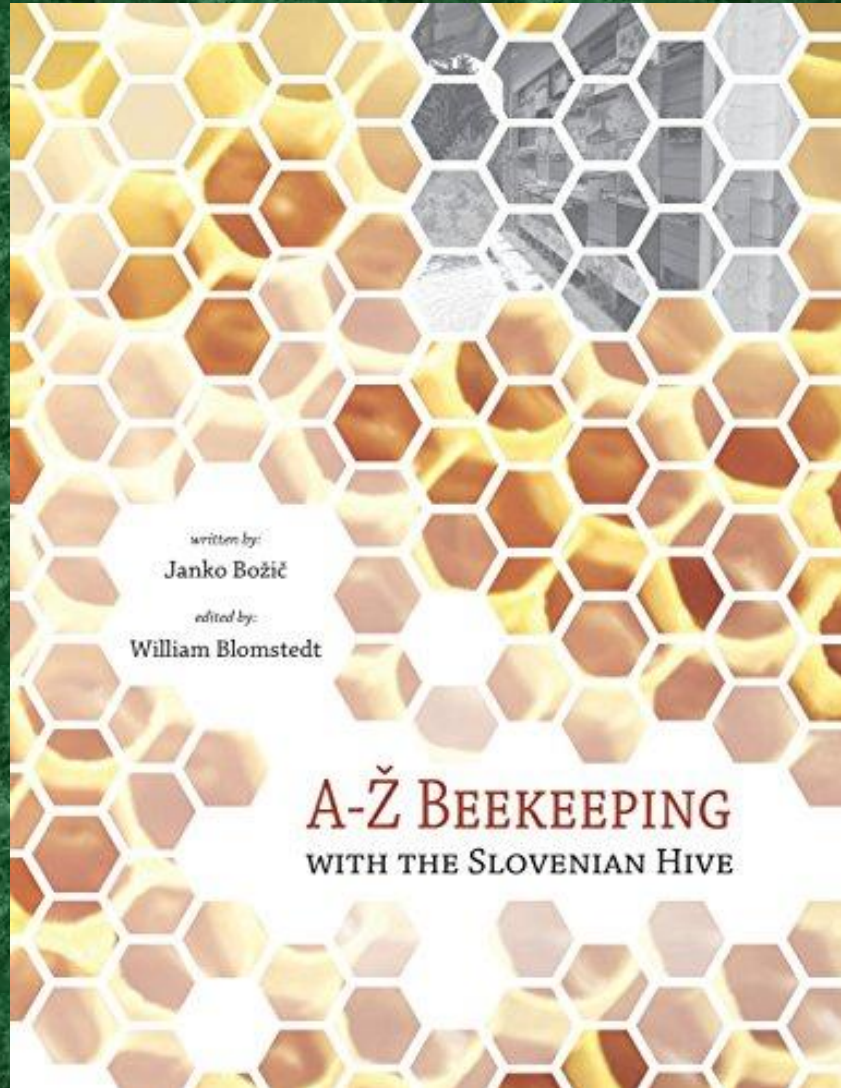
- Beekeeping taught - elementary schools



# Resources

## A – Z Beekeeping with the Slovenian Hive

by Janko Botzic



Beekeeping Manual for  
Disabled People  
[https://azhivesnorthamerica.  
com/](https://azhivesnorthamerica.com/)

# Resources for AZ Hives

DrebbievilleHives.com



# Resources for AZ Hives

<http://bee.stevenpankratz.com/>

or Steve4bees.us

33 frame  
TexAZ Hive



# Motivation – when life gets in the way of Beekeeping

**Health  
issues-  
Aging**



**Physical  
Limitations**



**AZ Style  
Hives**





U.S. made AZ hives?  
**TOO EXPENSIVE!**

There's  
Gotta Be  
A Way!

Have  
tons of  
Langstroth  
Equipment



NORTH CENTRAL

**SARE**



Sustainable Agriculture  
Research & Education

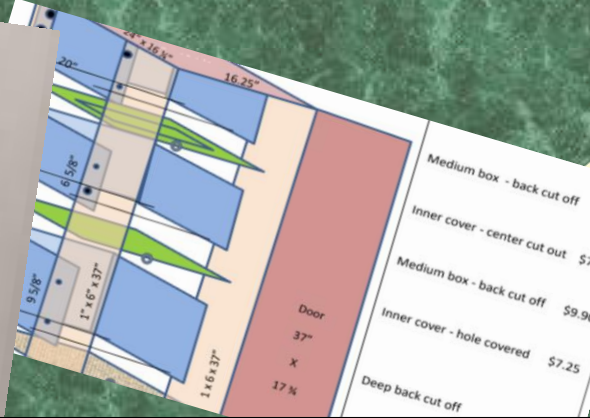
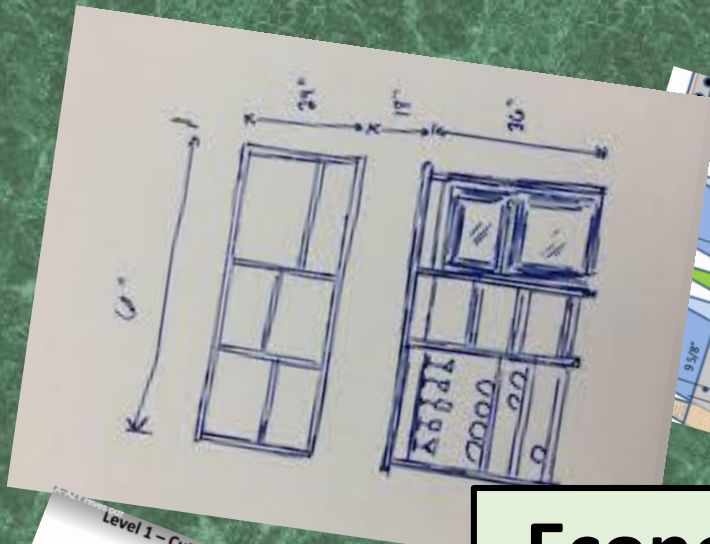
**NCR-SARE Farmer Rancher  
Grant Program**

~2018 Call for Proposals~

**Farmer Rancher**

**Sustainable Agriculture Grants**

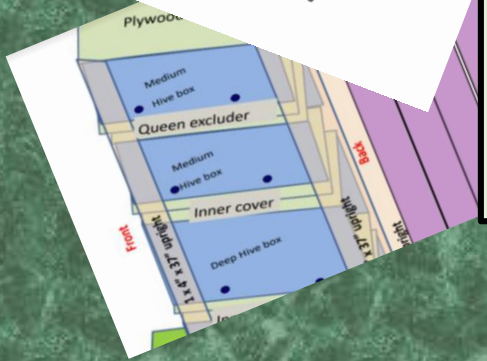
# Birth of the LAAZY Hive



Medium box - back cut off	\$9.90
Inner cover - center cut out	\$7.25
Medium box - back cut off	\$9.90
Inner cover - hole covered	\$7.25
Deep back cut off	



- Level 1 - Cutting 1/8" plywood (lath)
1. Cut thin lath into 14" strips -
    - to go over steel rod holes and space that inner covers slide into
    - Need 80
  2. Cut thin lath into 5" strips - need 10
    - Will be glued over hole in 10 inner covers



**Economic Modification of Langstroth to AZ-Style Hives to Enable Aging or Physically Limited Beekeepers to Continue/Begin Beekeeping; Enhance Hive Care; and Improve Colony Health and Production**

Funded by a grant from NC - SARE

# Langstroth **A**dapted to **AZ** Hive for **Y**ou

## Langstroth Components

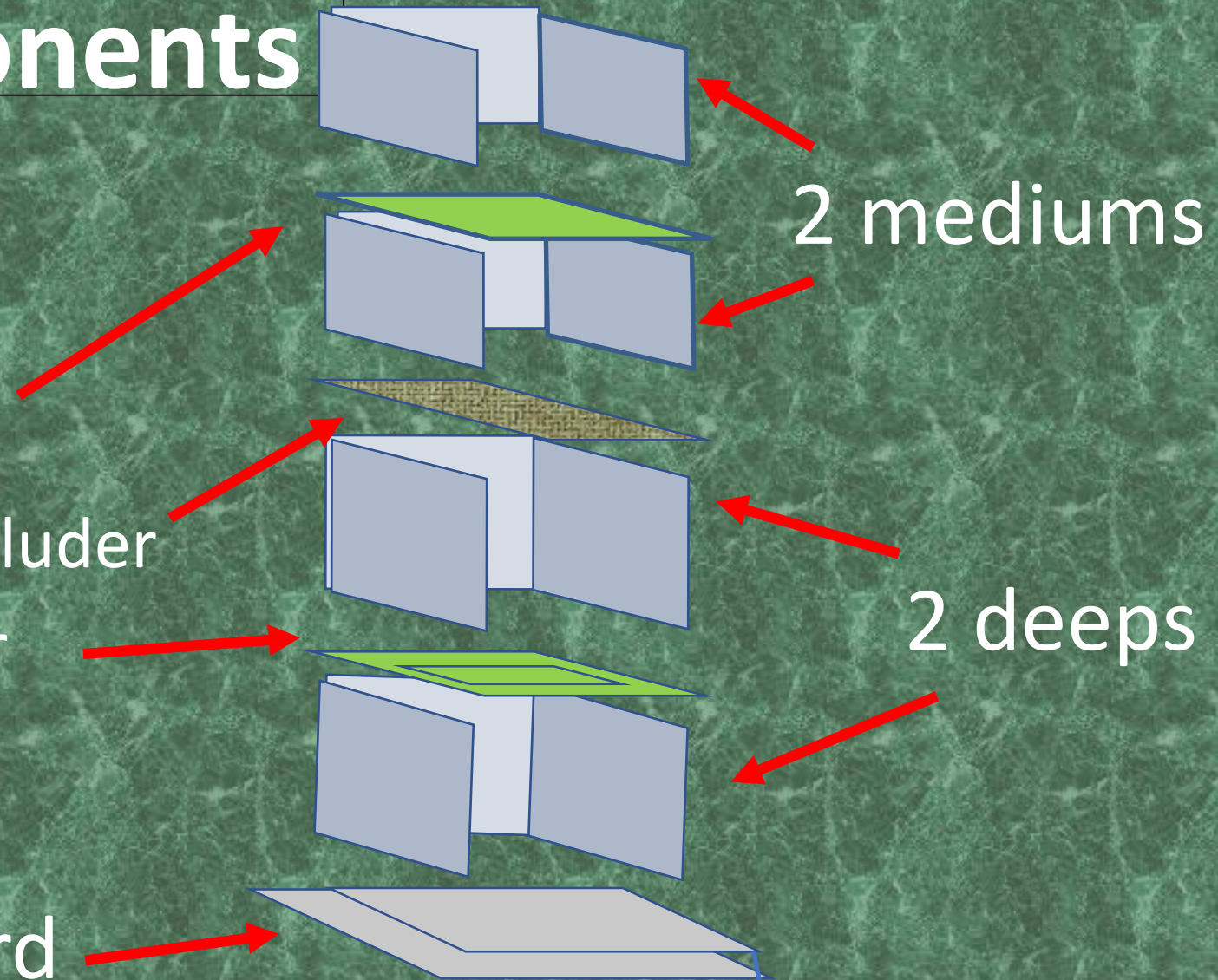
3 dividers –

1 solid inner cover

1 framed queen excluder

1 slotted inner cover

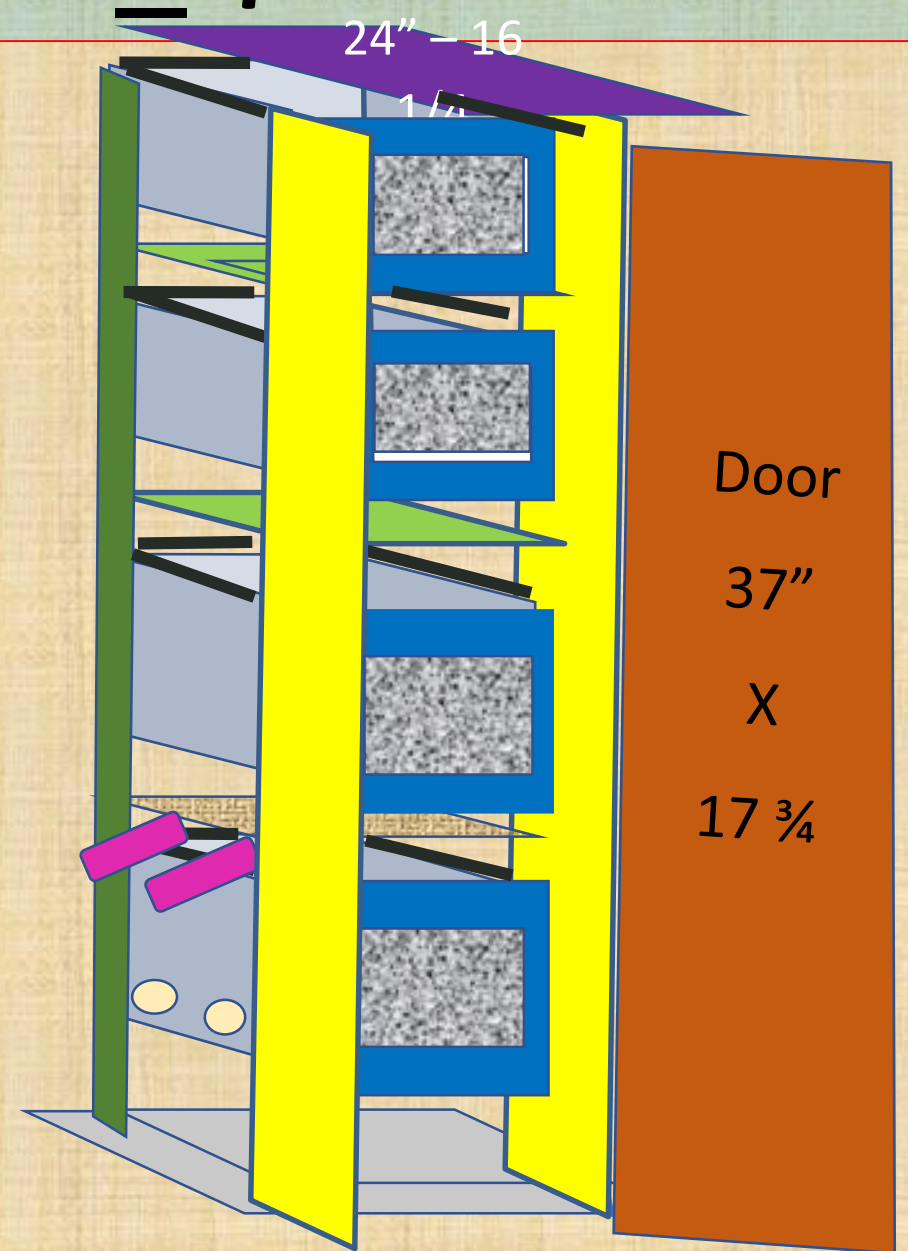
Screened bottom board





# Additional Lumber ~ \$43.00

- 1 x 4" – front verticals 
  - 1 x 6" - back verticals 
  - 1 x 4' – back door 
  - ½" plywood – top 
  - 3/8" x 1" lath – upper box rims 
  - Popsicle sticks – temp. spacers 
  - 1 x 2" – box doors 
- 
- Metal Rods  Metal screen 



# Additional Supplies

**Metal Frame spacers - 8**

**Door hinges - 2**

**Door hasp**

**8 eye screws - pulls**

**8 Hanger Bolts – doors**

**8 Wing nuts**

**Screws, nails**

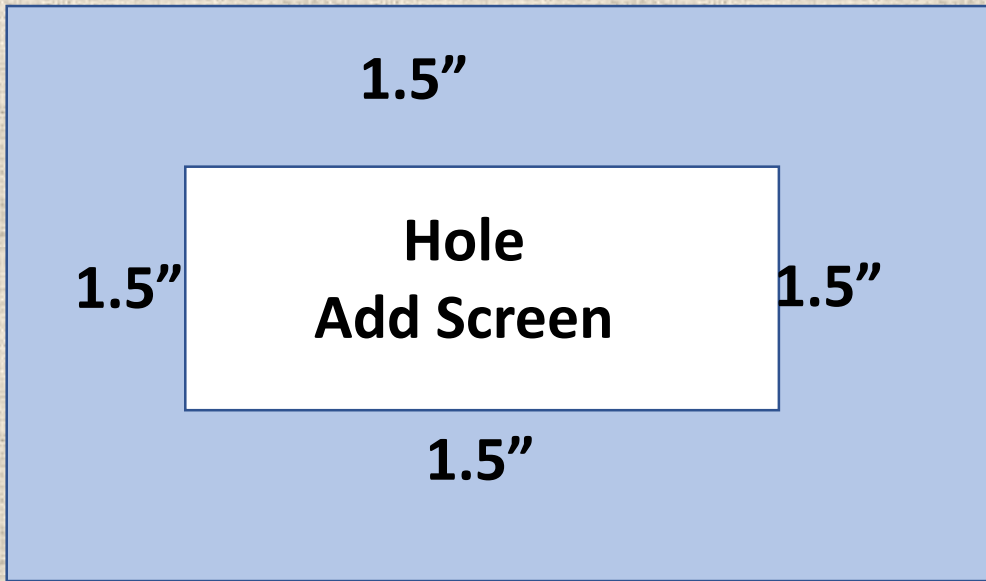
**≈ \$36.00**



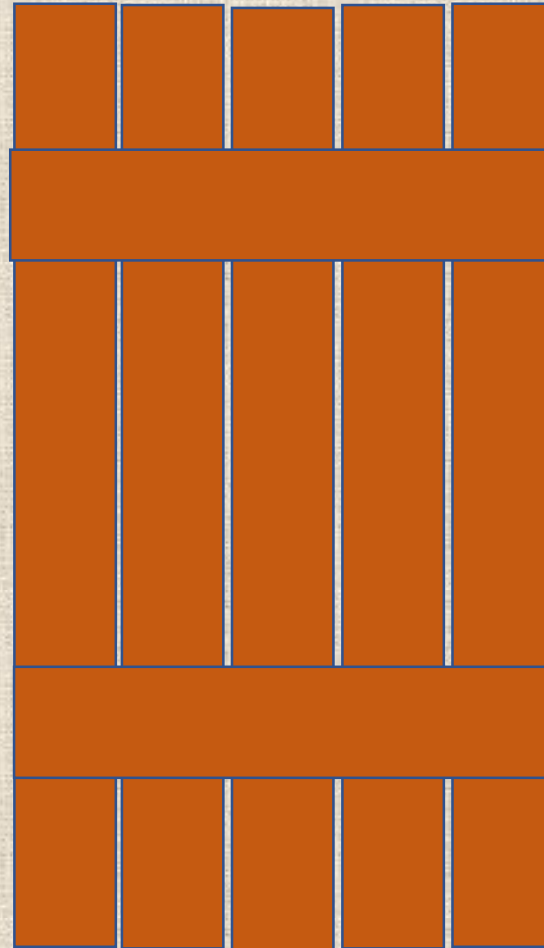
**TOTAL ≈ \$80**

# Components

## Doors for boxes



## Back Door for Hive



# Tools Needed

Need to have and be able to use:

- Hammer
- Drill –to drill and screw
- Circular saw or Miter saw
- Staple gun



# Building the Prototype LAAZY Hive

Deep with back cut off &  
bottom board



Screwing on  
the  
uprights

# Inner cover separators



Boxes  
screwed in  
place

Frame  
spacers on  
far front  
wall.



Stapling  
screen



Thin  
birch ply  
over  
cracks &  
rods



Inner  
screen  
doors on .

Swivel  
holders.

Add pieces  
on doors



Outer  
door  
on.



# Build Day



Cutting 1x4"s

## Assembling frames



Readying boxes

Stapling screen



Attaching uprights to  
boxes

Stack complete





Putting stack together.



Old equipment into LAAZY Hives

Routing door holes.





# A Bee House – from an old trailer



Seeking a project camper...



Gutting the inside.



Framing the outside.

# The Tiny House Look

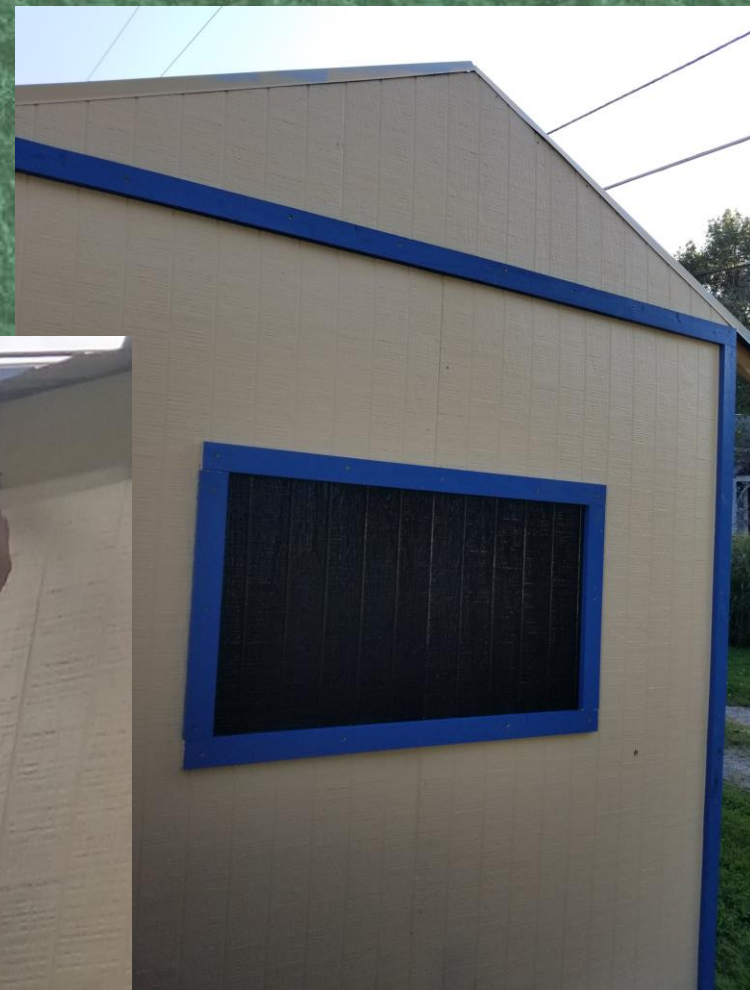
# Adding siding.



# Roof and Trim

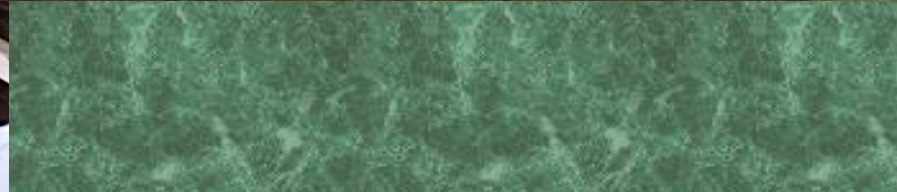


# Painting



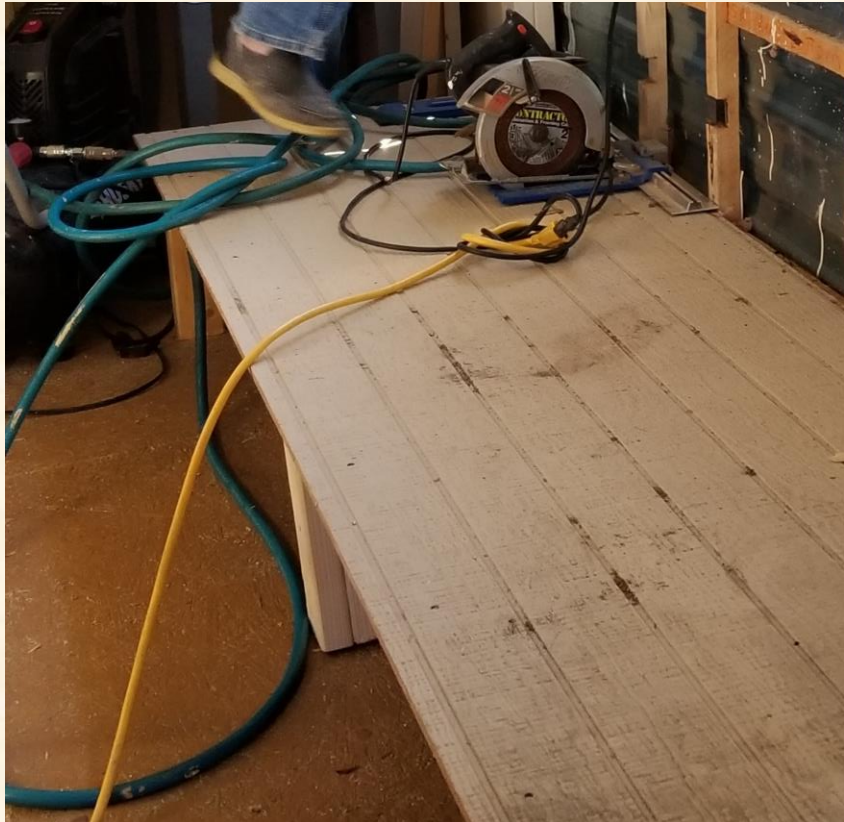


# Painting the Inside



# Cutting Opening for Hives

Benches for hives

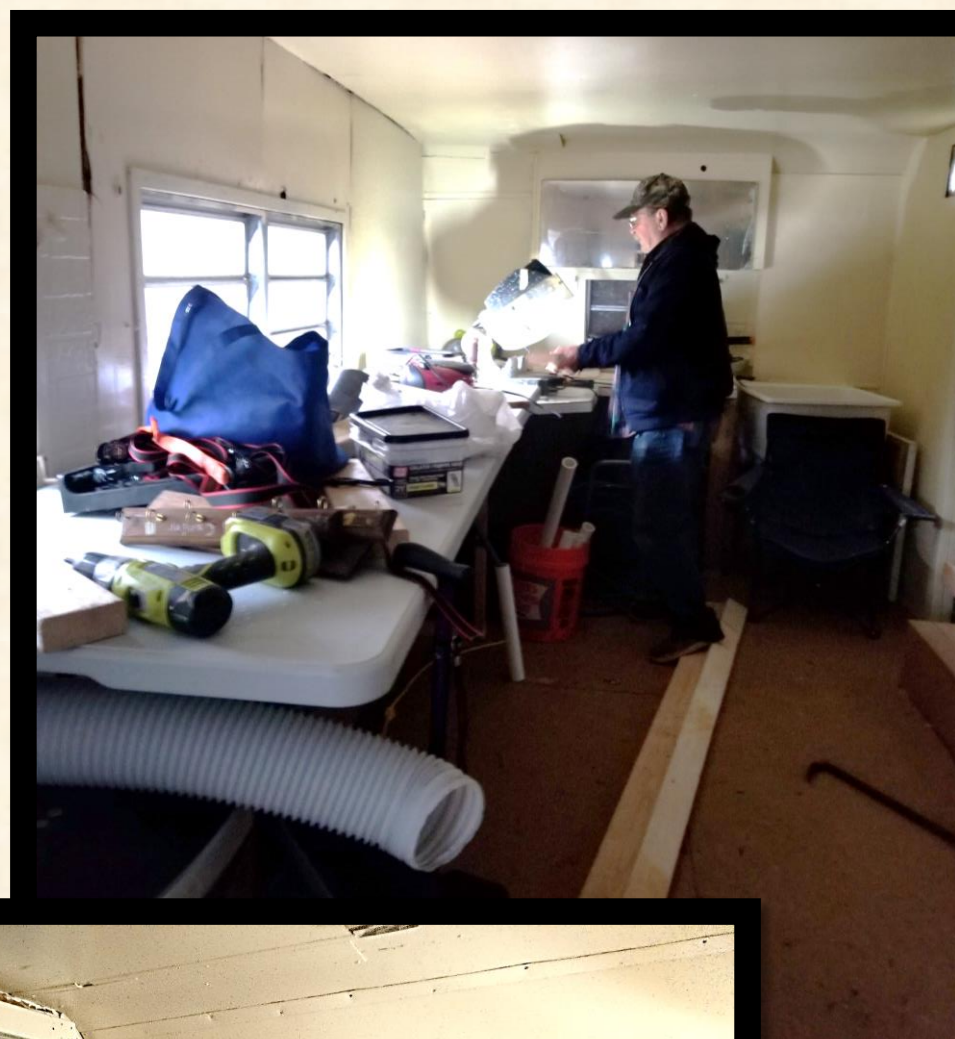


Cutting out the wall.

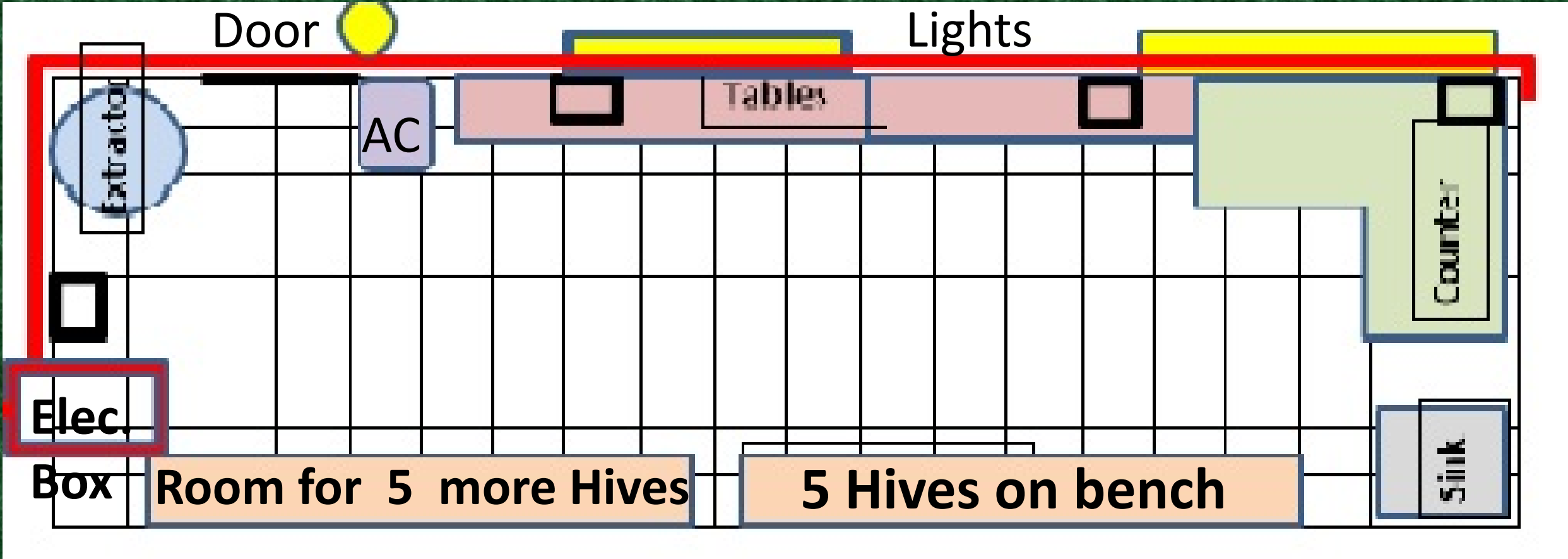
# Putting Hives In



# Inside View



# Bee House Layout



# Moving into Place



# New Home for BEE House



# Beekeeping in the Saum's Bee House

- Watch videos before installing
- Smoker
- Inspection





# Installing Bees



# Through the Doors



- Machete
- Propolis
- Survived winter

# Issues Encountered

Design Flaws

Not as easy as it looks,  
once bees are in

Inspections

Suit issues

Stings



# Modifying Process

Taking  
everything  
apart



# Adding Back Bee Space

$\frac{1}{2}$ " x  $\frac{3}{4}$ " square  
trim pine  
screen molding



# Different Frame Spacers



Mounted differently

# Door Re-Design

Recut Doors

Overlap box edges



# Door Attachment

Hanger Bolts

Wing Nuts

Holes

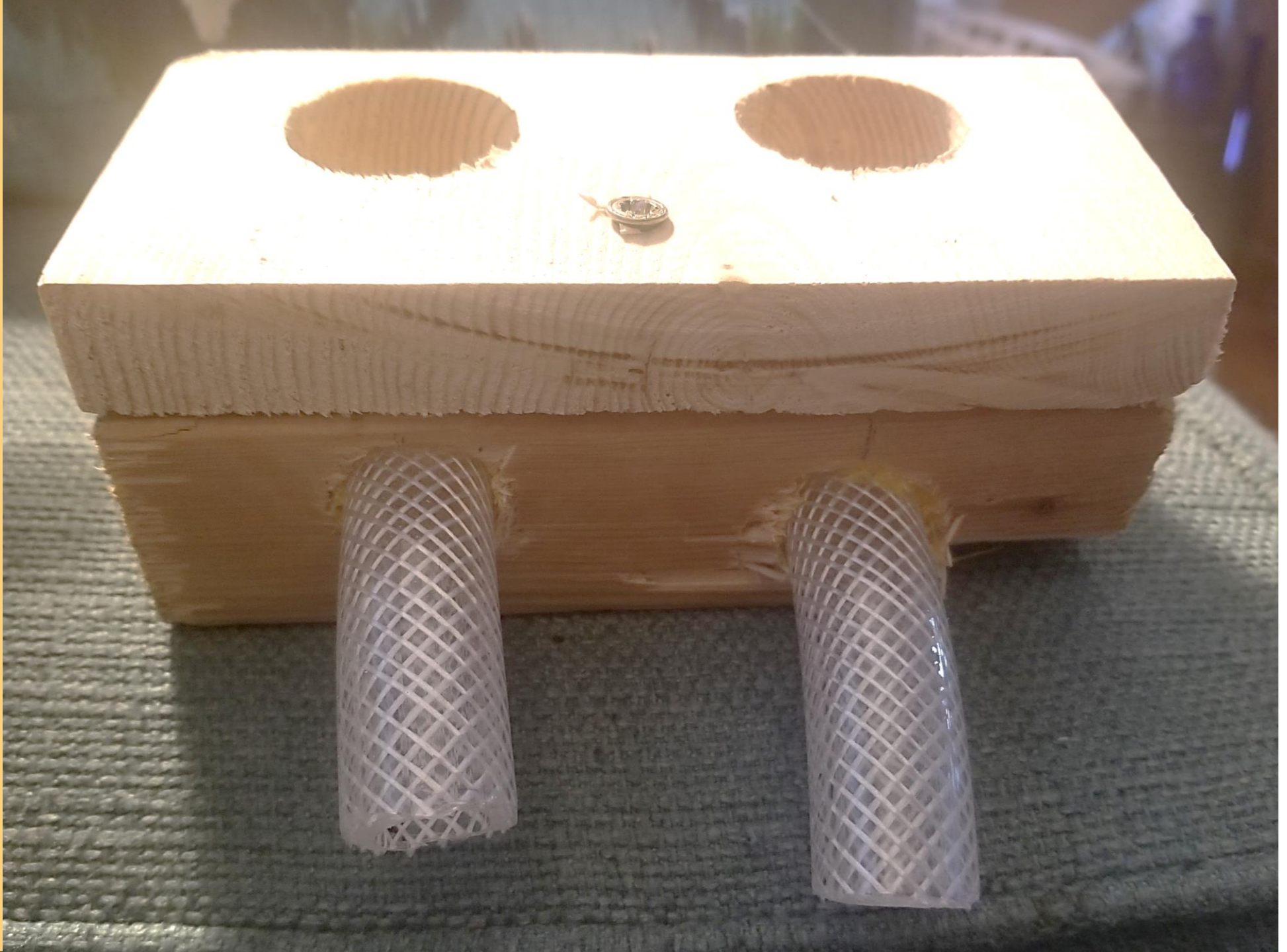




# Feeder

Easy to do  
with hand  
power tools

Pop bottles



# Inspection Tray

Keep the bees off  
your lap



# BUILDING SEQUENCE



# Box Preparation

- Back cut off
- Frame Spacers
- Trim on Rim
- Rods



# Preparing Dividers

## Inner covers

- One Solid



- Queen excluder

- 2 Slotted

# Starting the Stack

- Uprights

- 1 x 4"

- 1 x 6"

- Box #1 - Deep

- Bottom Board



# Adding Second Box



- Inner cover
- Popsicle sticks for ease
- Box 2 - deep



# Adding Third Box

- Inner cover
- Popsicle sticks for ease
- Box 3 - medium





# Adding Fourth Box – Covering Sides



- 1/8" plywood
- Covers cracks
- Rod holes



# Divider Stops



- 3 Scraps of screen trim
- Keep dividers from sliding through

# Add Ledge in Back



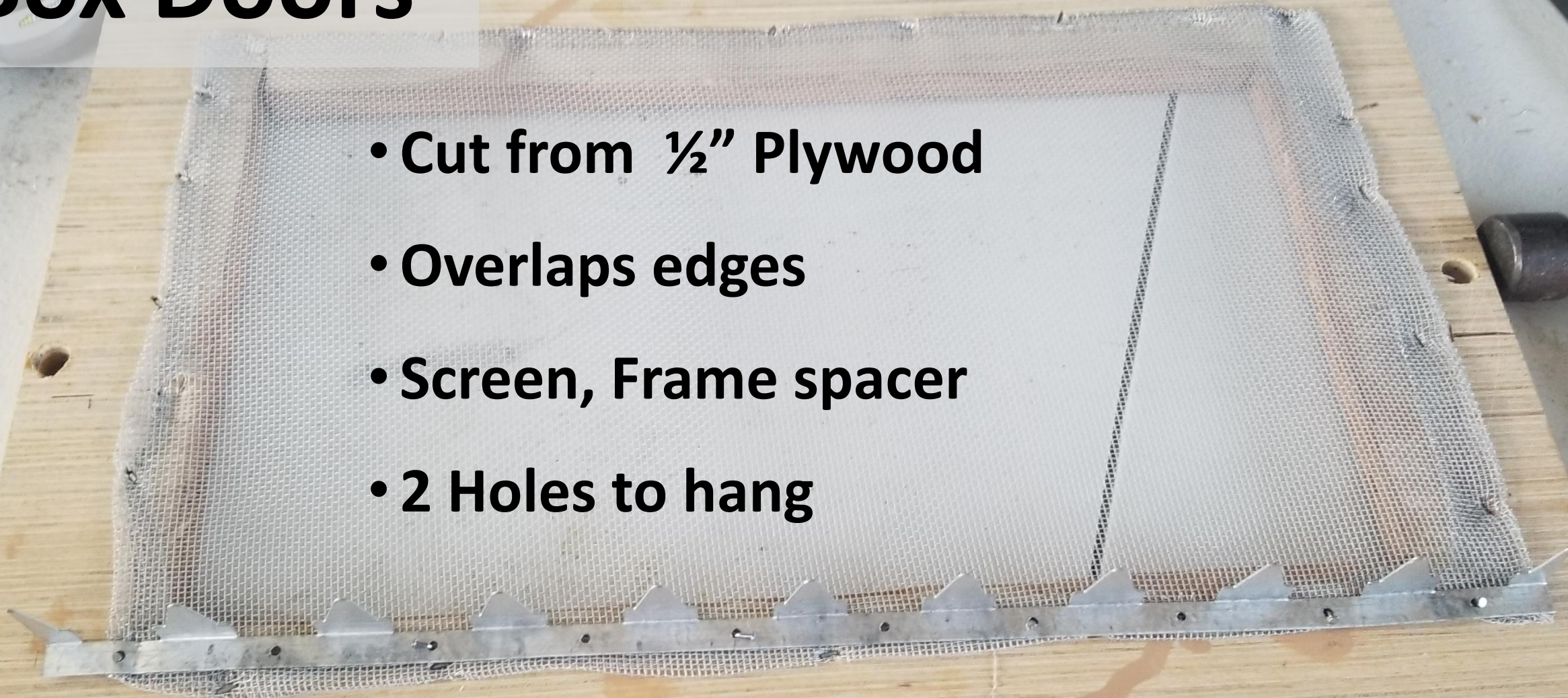
Screw between 1 x 6"s

# Adding Top

- Plywood
- Not weather-proof

# Box Doors

- Cut from  $\frac{1}{2}$ " Plywood
- Overlaps edges
- Screen, Frame spacer
- 2 Holes to hang



# Adding Hanger Bolts



**Attaching**

**Screen**

**Doors**



# Adding Outer Door

- Level with top
- Strap Hinges
- Double hinged latch





# Outdoor Shelter

- **Front – bee entrance**
- **Shelter hives from weather**



# Outdoor Shelter Back

- Shade for beekeeper
- Sit or stand
- No AC!



## Plans Published

### THE LAAZY HIVE

LANGSTROTH ADAPTED TO AZ-STYLE HIVE FOR YOU

Directions for converting your Langstroth components into an AZ-style hive

Funded by a grant from NC-SARE

Part 1 - Background, Hive Drawings and Materials Lists



Saum's Micro Farm and Apiary, 5477 Hayes Rd., Groveport, OH 43125  
Dotson Farm, 1815 Marietta Rd., Lancaster, OH 43130  
Jeannie Saum - Grant Author and Manager

1

LANGSTROTH ADAPTED TO AZ-STYLE HIVE FOR YOU

### Part 2 Assembly Directions

Funded by a grant from NC-SARE

by Jeannie Saum



\*Note: if you are using hand held power tools, like we did, you may need to do minor adjustments and trimming, to make everything fit tightly. Measure, fit and adjust as you cut and build.

# Beekeeping for the Differently-Abled



Thanks to the NC-SARE Grant