

Greenhouse Basics for West Texas Gardeners

So You Want a Greenhouse?

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Association

Greenhouse Basics for West Texas Gardeners

Growing More, Growing Longer, Growing Better



Why Have A Greenhouse?

Benefits

- ✓ Extend the growing season
- ✓ Start seeds earlier
- ✓ Protect plants from wind and hail
- ✓ Grow vegetables longer
- ✓ Better control over growing conditions
- ✓ Enjoy gardening year-round



What a Greenhouse Can and Cannot Do

A Greenhouse CAN:

- Protect plants
- Extend seasons
- Improve germination
- Reduce weather stress

A Greenhouse CANNOT:

- Eliminate all pests
- Replace proper watering
- Eliminate summer heat
- Grow every crop perfectly

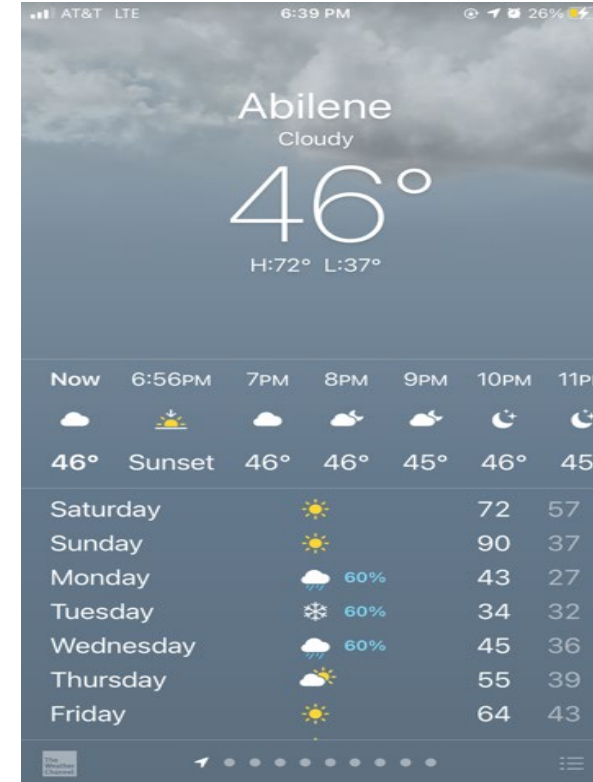
West Texas Challenges

Our Climate

- High winds
- Hail
- Intense sunlight
- Low humidity
- Sudden freezes
- Summer temperatures over 100°F
- Friday, Oct 23 vs Sunday, Oct 25, 2020

Key Point

Cooling is often a bigger challenge than heating.



Types of Greenhouses

Common Types

- Mini greenhouse
- Hoop house
- Polycarbonate greenhouse
- Glass greenhouse
- Lean-to greenhouse





Mini Greenhouse

Pros

- Inexpensive
- Small footprint
- Good for seed starting

Cons

- Limited space
- Overheat quickly
- Short lifespan

Best For

Beginning gardeners



Hoop Houses

Pros

- Affordable
- Large growing space
- Easy construction

Cons

- Plastic replacement needed
- Less attractive
- Wind concerns



Polycarbonate Greenhouses

Pros

- Durable
- Good insulation
- Diffused light
- Hail resistant

Cons

- Higher initial cost

Often the Best Choice for West Texas



Glass Greenhouses

Pros

- Beautiful
- Long lifespan
- Excellent light transmission

Cons

- Expensive
- Fragile
- Hot in summer



Location Matters

Choose a Site With:

- ✓ Full sun
- ✓ Good drainage
- ✓ Water access
- ✓ Electricity nearby
- ✓ Protection from prevailing winds

Avoid:

- X Low spots
- X Heavy shade
- X Poor drainage

Greenhouse Orientation

North-South Orientation

- More even light year-round

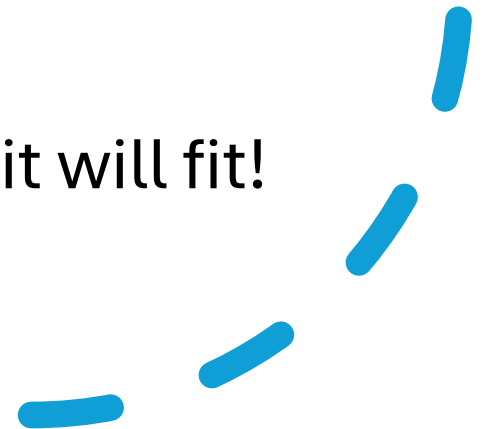
East-West Orientation

- Better winter light in some situations

For Most Homeowners

North-South is often easiest and most effective.

- Reality – sometimes it's where it will fit!



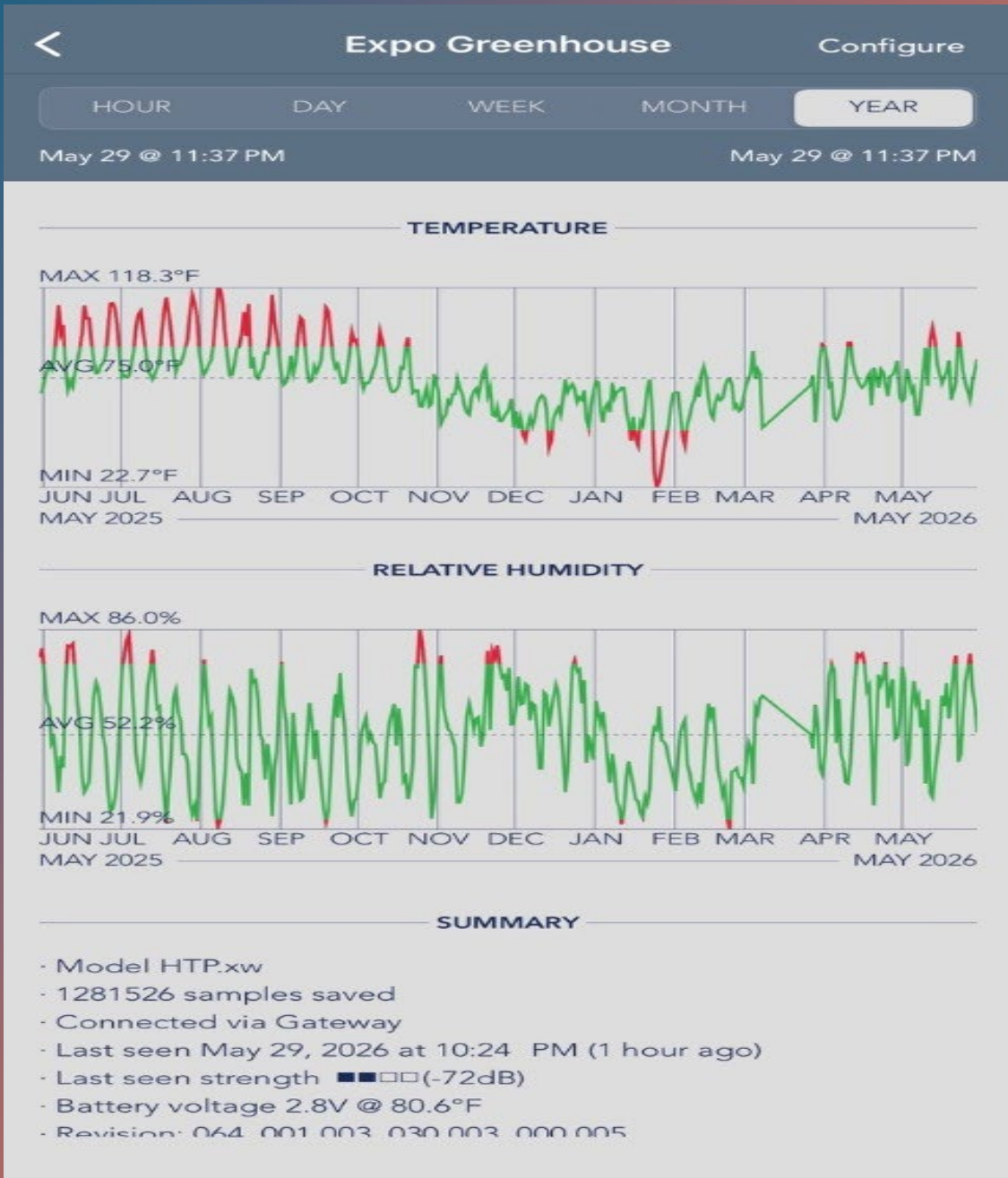
Ventilation is Critical

Heat Kills Faster Than Cold

Essential Components:

- Roof vents
- Side vents
- Exhaust fans
- Circulation fans





Summer Heat Management

Tools for Cooling

- Shade cloth
- Ventilation
- Exhaust fans
- Evaporative cooling

Temperature Goal

Keep temperatures below 90–95°F when possible.



Winter Protection

Options

- Thermal blankets
- Water barrels for heat storage
- Small heaters
- Frost cloth
- Plastic and Tarps

Goal

Protect from freezes, not necessarily maintain tropical conditions.

Watering Systems

Hand Watering

Pros:

- Inexpensive
- Precise

Cons:

- Time-consuming

Drip Irrigation

Pros:

- Efficient
- Consistent

Recommendation

Drip irrigation for most greenhouse owners.



Greenhouse Benches and Layout

Consider:

- Work area
- Storage
- Walkways
- Growing benches
- Wheels on benches

Rule:

Leave enough room to move comfortably.

What Can You Grow?

Great Beginner Crops

- Lettuce
- Spinach
- Herbs
- Tomatoes
- Peppers
- Cucumbers

Also Excellent

- Seedlings
- Anything you are willing to try!
- Annual flowers

Common Beginner Mistakes

Buying too small

Poor ventilation

Overwatering

No shade cloth

Ignoring pests

Poor location selection

Budget Considerations – Typical Costs

Mini greenhouse:
\$100–\$500

Hoop house:
\$500–\$3,000

Polycarbonate greenhouse:
\$2,000–\$10,000+

Glass greenhouse:
\$5,000+

**Remember - Operating costs matter
too.**

Is A Greenhouse Right for You?

Ask Yourself

- How much time can I devote?
- What do I want to grow?
- How much space do I have?
- What is my budget?

The Best Greenhouse

The one you'll actually use.



Big Country Master Gardener Association



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