

CASE

*Curriculum for Agricultural
Science Education*

Principles of Agricultural Science – Plant

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Greenhouses

Unit 9 – Crop Production and Marketing
Lesson 9.1 Tools of Plant Production

Greenhouse Structures

Greenhouses create an artificial environment for growing plants.

A greenhouse will provide optimal

💡 Light

🌡️ Temperature



Greenhouses

Greenhouses work by

- 🏠 Storing heat and slowing the loss of heat to the atmosphere.
- ☀️ Trapping light radiation causing warmer temperatures.

Greenhouse Construction

Materials used for greenhouse skins:

- **Acrylic sheets**
 - Good insulation, high light transmission, expensive
- **Fiberglass sheets**
 - Discolors after 7 - 10 years, poor insulation
- **Glass**
 - High light transmission, long life, expensive
- **Polycarbonate sheets**
 - High light transmission, durable, good insulation
- **Polyethylene (rolls of flexible plastic)**
 - Short life, not durable, inexpensive

Greenhouse Equipment



Benches



Circulation fans



Cooling and ventilation fans



Heaters

– Propane or natural gas



Irrigation systems



Lighting



Shade cloth

References



Parker, R. (2010). *Plant and soil science: Fundamentals and applications*. Clifton Park, NY: Delmar.