BOTANY FOR BEEKEEPERS

LOOKING AT PLANTS AND POLLENATORS FOR BEEKEEPERS

STARTING FROM THE TOP PHOTOSYNTHESIS

THE PROCESS IN WHICH PLANTS CONVERT LIGHT & CARBON DIOXIDE INTO SUGAR

PHO- LIGHT

SYNTHESIS-

PUTTING TOGETHER

OSMOSIS-THE CELLS WATER PUMP

- OSMO (A PUSH)
- THE PROCESS IN WHICH GREEN PLANTS TAKE UP WATER AND MINERALS THAT ARE RETRIEVED FROM THE SOIL VIA THE VASCULAR SYSTEM THRU A SEMIPERMEABLE STRUCTURE OF THE PLANT

RESPIRATION – THE REVERSE OF PHOTOSYNTHESIS

TAKING IN CARBON DIOXIDE + WATER - RELEASING OXYGEN BREATHING

Osmosis



HOW IT APPLIES TO BEEKEEPERS

POLLEN SOURCE

POLLENIZER SYNDROMES

THE TRANSFER OF POLLEN FROM THE ANTHER TO THE STIGMA OF THE FLOWER AIDS IN SEXUAL REPRODUCTION

POLLEN+NECTAR=INTERDEPENDENCE

NECTAR SOURCE

NECTAR-SUGAR RICH LIQUID PRODUCED BY PLANT GLANDS CALLED NECTARIES

NECTARIES- SPECIALIZED STRUCTURES WHICH ARE USUALLY FOUND AT THE BASE OF THE PLANT SPECIES

GDD + VARIABLES = POLLEN/NECTAR MATURITY

GROWING DEGREE DAYS

MAX + MIN TEMPS

A GUIDELINE TO DETERMINE WHEN A FLOWER OR CROP PRODUCE POLLEN/NECTAR MATURITY

VARIABLES

SOIL TEXTURE

FORAGE AVAILABILITY & DIVERSITY

WEATHER

-WIND

-RAIN

TOP 5 FAVORITES

- CLOVER VARIETY
- BEE BALM (MONARDA)
- WILLOW (SALIX) NATIVE
- ASTER
- BORAGE (BORAGO OFFICINALIS)
 - PHOTOSYNTHESIS
 - OSMOSIS
 - PARTS OF THE FLOWER
 - POLLEN SOURCE/NECTAR SOURCE
 - GDD + VARIABLES = POLLEN/NECTAR

BEE GARDEN

BEAUTIFUL & DIVERSE LANDSCAPE HAVEN FOR WILDLIFE & BENEFICIAL INSECTS

HEALTHY HABITAT