YFR | APPLICATION CONCEPT

# Infrared Drying for Agricultural Products

Combine radiant heat with airflow for controlled crop drying.



Existing website image; project and performance not verified.

## The Process Challenge

Vegetables, herbs and grains need moisture removal without excessive heating. Product thickness, loading and initial moisture can change the drying response. A heater setting alone does not establish the final moisture content or product quality.

## The Infrared Approach

Infrared emitters supply radiant energy to exposed product surfaces. Air circulation and exhaust carry away released moisture. In a batch or conveyor concept, emitter placement, airflow and residence time are matched to the product, then checked through sample trials.

**1. PREPARE**
Set product thickness and loading

**2. HEAT**
Apply controlled radiant energy

**3. EXHAUST**
Remove released moisture

**4. CHECK**
Measure moisture and quality

## Application Features

- Non-contact energy delivery to exposed product surfaces
- Heating zones can follow tray or conveyor dimensions
- Power regulation can be coordinated with airflow and movement
- Product-temperature and moisture checks guide the recipe
- Accessible layouts support cleaning and lamp replacement

## Typical Configuration

**PRODUCT**
Vegetables, herbs or grains; suitability confirmed by trials

**EMITTER SELECTION**
Spectrum, power and layout based on product testing

**AIR MANAGEMENT**
Circulation, humidity control and moisture exhaust

**CONTROL**
Product temperature, time and conveyor or batch sequence

**DESIGN INPUTS**
Loading depth, width, initial moisture and throughput

**ACCEPTANCE**
Final moisture, color, texture and temperature limits

### APPLICATION NOTE

Application concept, not a documented customer result. Drying does not by itself establish a validated microbial-reduction process. Final emitter ratings, drying time and food-contact arrangements require application review.

**Discuss your application | info@yinfrared.com | +86 138 5232 7847**