

HOUSING PREPARATIONS BEFORE SUMMER

Remove any metal objects from around sheds (machinery, vehicles and other junk) which could radiate heat into open houses.



Remove manure from houses in February/March.



Avoid over-crowding in cages.



Thatching material (straw or grasses) will reduce heat radiating through the roof.

White-washing roof helps to reflect more heat.

Roof sprinklers are also an effective combination with roof thatching.



Install/clean fans and foggers prior to summer.



Water tanks are best placed inside the shed or buried underground.

Tanks outside the shed should be insulated or painted white.



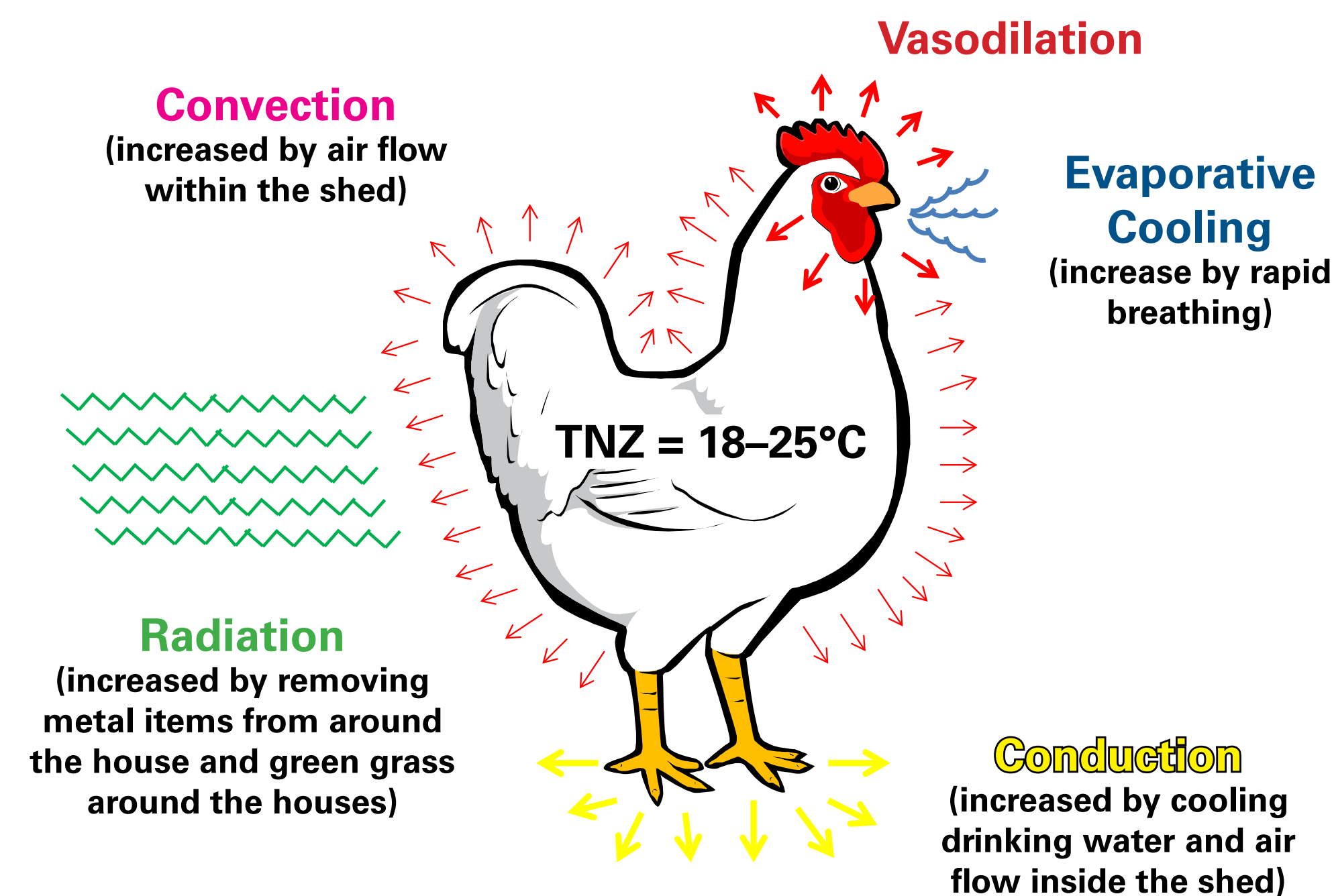
Routine window screen cleaning improves cross-ventilation.

Dripping water onto gunny bags reduces air temperature inside of the shed.



TEMPERATURE HUMIDITY INDEX (THI)

| | | Relative Humidity (%) | | | | | | | | | | | | | | | | | | | |
|-----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| °F | °C | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
| 68 | 20 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 68 | 68 | 68 |
| 72 | 22 | 64 | 65 | 65 | 66 | 66 | 66 | 67 | 67 | 67 | 68 | 68 | 69 | 69 | 69 | 70 | 70 | 70 | 71 | 71 | 72 |
| 75 | 24 | 66 | 67 | 67 | 68 | 68 | 69 | 69 | 70 | 70 | 71 | 71 | 72 | 72 | 73 | 73 | 74 | 74 | 75 | 75 | 75 |
| 79 | 26 | 68 | 69 | 69 | 70 | 70 | 71 | 71 | 72 | 73 | 73 | 74 | 74 | 75 | 75 | 76 | 77 | 77 | 78 | 78 | 79 |
| 82 | 28 | 70 | 70 | 71 | 72 | 72 | 73 | 74 | 74 | 75 | 76 | 76 | 77 | 78 | 78 | 79 | 80 | 80 | 81 | 82 | 82 |
| 86 | 30 | 71 | 72 | 73 | 74 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 81 | 82 | 82 | 83 | 84 | 84 | 85 | 86 |
| 90 | 32 | 73 | 74 | 75 | 76 | 77 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 93 | 34 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 |
| 97 | 36 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 |
| 100 | 38 | 78 | 79 | 81 | 82 | 83 | 84 | 85 | 86 | 88 | 89 | 90 | 91 | 92 | 93 | 95 | 96 | 97 | 98 | 99 | 100 |



THERMOREGULATION OF BIRDS

NUTRITIONAL MANAGEMENT

Avoid feeding hottest part of the day. Increase feeding hours in morning.

- Formulate feed according to actual feed intake levels.
- Include oils and synthetic amino acids to replace energy and crude proteins.
- Increase the levels of vitamins (Vitamin C at 200-300 mg/kg of diet), trace mineral, sodium bicarbonate, organic zinc and copper.
- Increase phosphorus levels up by 5%.
- Avoid Nicarbazine (anticoccidial drug) during hot weather.

MANAGING FLOCKS DURING SUMMER



Keep drinking water cool by flushing water lines during the hottest period of the day.

Avoid disturbing birds during day time – shifting, vaccinating, beak trimming etc.



Fan and Fogger Management:

High Humidity - Prefer Fans

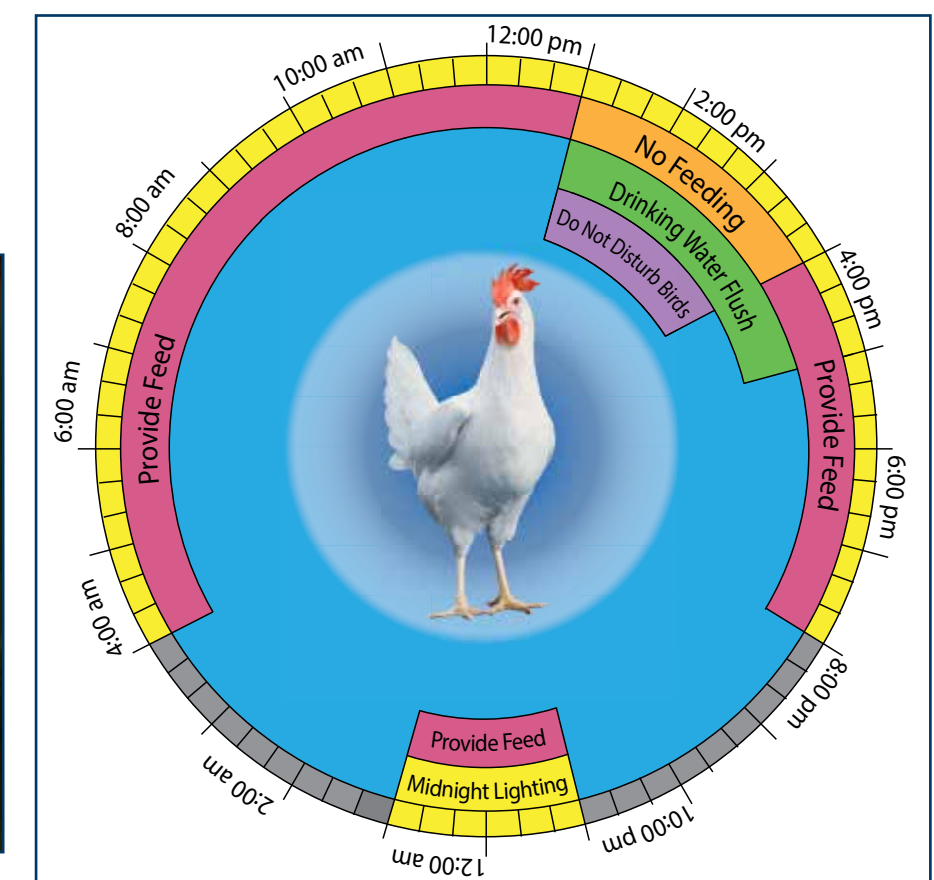
Low Humidity - Prefer Fogger

- Fan and Fogger run times decided based on shed temperature and humidity.
- Run the foggers for 2 minutes every 10 minutes (frequent short periods).
- Ensure that using foggers or roof sprinklers does not limit availability of birds' drinking water.

Midnight Lighting: 1–2 hours in night, leaving 3 hours dark before and after midnight light. Done effectively with the help of timers.

- This can be practiced from the age of 6 weeks onwards.

- Lighting schedule adjusted to provide more hours in the morning during summer when temperatures are cooler.



VACCINATION CONSIDERATION

- Vaccinate early in the morning to minimize heat stress. Water withholding time should be considered.
- Adjust medications and volumes of water to reflect the increased water consumption during hot weather.

EMERGENCY SITUATIONS

- Flocks sprayed with water to save its life.
- Potassium chloride, ammonium chloride and sodium bicarbonate (2-3kg/Mt) can be beneficial.
- Risk for E.coli infection is high, so usage of water sanitizer is advisable.

FOR MORE INFORMATION

See the "Understanding Heat Stress in Layers" Technical Update at www.hyline.com.

