

LITMUS AMMONIA MONITOR INFORMATION

INTRODUCING THE LITMUS AMMONIA MONITOR (LAM)

LAM is the first tool to give poultry growers an inexpensive and easy to use method to consistently monitor ammonia level averages over a 1 – 24 hour period.

In order to maximize the potential for LAM it is imperative that the Industry understands the intended functions of LAM and how to use LAM properly before testing begins.

LAM INTENDED FUNCTIONS

The LAM indicator is intended for daily use to help judge the **average daily ammonia level** in your Confined Animal Feeding Operation (CAFO).

The averaging feature of the LAM offers growers a more useful method to judge house “adjustments”. The LAM is lower cost and more effective in maintaining ammonia levels than a “point in time” measurement.

Farm managers or technicians, requiring “quick reads” before chick placement, may have growers place the LAMs before the technician arrives. This determines the **average daily ammonia level** before bitty placement.

HOW TO USE LAM

LITMUS Ammonia Monitor / El Indicador Blanco Amoniaco Del Tornasol

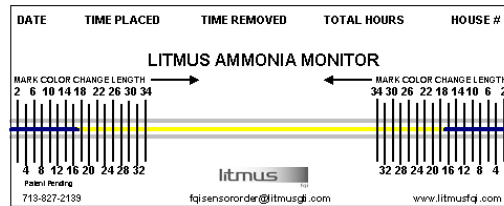
WARNING! / ¡cAlerta!

BEFORE USAGE KEEP BAG SEALED TO PREVENT AMMONIA EXPOSURE
Mantienga El Bolso Sellado Para Prevenir Exposicion Del Amoniaco Antes De La Colocacion

DIRECTIONS

1. **RECORD** on Monitor: Date, Time Placed, House #, etc.
2. **HANG** Monitor at appropriate locations in each house.
3. **MARK** Color Change Length on the Monitor immediately before removal from the house.
4. **RECORD** Time Removed and Total Hours Used.
5. 1-4 hour readings identifies “less than or more than” PPM target **Examples:** (1) 1 hour reading of 1-3 MM movement indicates the ammonia level is less than the 10 PPM target. (2) 1 hour reading with a 5 MM movement indicates the ammonia level is more than 10 PPM target.
6. 4 hour and longer readings identify time weighted average PPM levels. **Examples:** (1) 5 hour reading with a 5 MM movement indicates an average ammonia level of 10 PPM. (2) 5 hour reading with a 7 MM movement indicates an average ammonia level of 20 PPM.
7. If adjustments are made to reduce ammonia, place a new monitor; otherwise replace daily!

FRONT EXAMPLE: Color Change = 17



BACK EXAMPLE: 1. Total Hours = 10; 2. Color Change = 17; 3. PPM = 50

PPM	TOTAL HOURS																																																																		
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DIRECCIONES

1. **REGISTRO** de Monitor: fecha, hora realizadas, tiempo quita, las horas totales, Casa #, etc.
2. **CUELGUE** Monitor, en lugares adecuados en cada casa.
3. **MARCOS** cambio de longitud de color en el monitor inmediatamente antes de la salida de la casa.
4. **TIEMPO** Record removido y usado Total de horas.
5. 1-4 horas lecturas identifica “menor o más que” objetivo PPM. Ejemplos: (1) 1 hora de lectura de circulación 1-3 MM indica el nivel de amoniaco es menor que el objetivo del 10 PPM. (2) 1 hora de lectura con un movimiento de 5 MM indica el nivel de amoniaco es más de 10 PPM de destino.
6. 4 hora y las lecturas más largas identifican los niveles de media ponderada de tiempo PPM. Ejemplos: (1) 5 lectura de la hora con un 5 movimiento de MM indica un nivel medio de amoniaco de 10 PPM. (2) 5 lectura de la hora con un 7 movimiento de MM indica un nivel medio de amoniaco de 20 PPM.
7. Si ajustes son hechos para reducir amoniaco, coloca un nuevo monitor; de otro modo reemplaza diariamente.

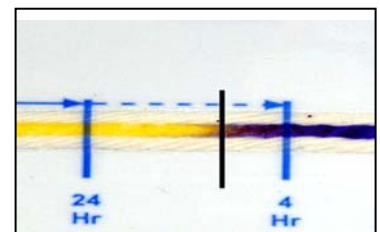
WHY SHOULD AMMONIA LEVELS BE CONTROLLED?

- Numerous studies have shown that ammonia concentrations over 20 ppm, reduce weight gains, increase feed conversions, decrease bird uniformity and yield as well as increase susceptibility to disease.
- Birds raised in 25 ppm vs 50 ppm can weight up to 25% more. Larger birds mean more income.
- A healthier environment for you and your workers.
- Less air pollution and happier neighbors.

HANG LAM FROM OVERHEAD LINES



MARK LAM WHERE COLOR CHANGE IS SOLID BLUE



ORDERING LAM

LAM is packaged in 20 count packages. Minimum order is 100 (or 1 master package). Orders may be placed by visiting www.litmusfqi.com

Personal Assistance – Help with use, interpretation and ordering is always available:

- 713 827 2139 or cchase@litmusgti.com
- 770 967 3000 or gupchurch@litmusgti.com