

# Profitable And Sustainable Poultry Farming Using The Path-Away® Method





# Primary Goals

- ❖ Increased revenue and profitability
- ❖ Bigger birds
- ❖ Healthier birds
- ❖ Better feed conversion
- ❖ Increased egg production with less loss
- ❖ Produce organic and chemical free birds and eggs
- ❖ Reduce insects and parasites
- ❖ Reduce ammonia odors
- ❖ Apply to breeders, broilers, hatcheries and processing

# Main Areas Of Pathogen Transmission

- ❖ Infected chicks introduced to the flock
- ❖ Litter
- ❖ Housing structure surfaces
- ❖ Transportation vehicles
- ❖ Feedstock
- ❖ Vector borne pathogens (insects), birds, humans
- ❖ Water supply



# Current Methodology

Basic modern day methodology includes the following

- ❖ Application of chemical disinfectant
- ❖ Application of medicinals in response to problems
- ❖ Frequent feedstock resupply due to contamination
- ❖ High ventilation rates to reduce ammonia odors
- ❖ Labor intensive and costly insect level controls

# The Path-Away® Methodology

The Path-Away® Methodology includes several scientifically developed procedures that have been

***Tested      Proven      Approved***

- ❖ Fully tested and utilized on numerous poultry operations
- ❖ Proven and documented results over and over again
- ❖ Approved product by EPA, FDA, USDA, JAS, EU



# Path-Away® Poultry Protectant

- ❖ Plant based phytoceutical
- ❖ Certified organic
- ❖ Non GMO
- ❖ Alcohol free
- ❖ Non toxic to bees
- ❖ Effective on 170+ pathogens
- ❖ Totally soluble
- ❖ No added chemicals
- ❖ FDA approved ingredients
- ❖ Certified organic
- ❖ USDA approved
- ❖ Can be applied while birds are present

# Project #1: Wayland Turkey Farm

## Pre Path-Away® Methodology

- ❖ 10 sheds fully operational
- ❖ 8,000 birds per shed
- ❖ Average culled bird weight 42 Lbs/19.05 kg
- ❖ Mortality rate up to 19 weeks: 7-15 birds/week
- ❖ Feed conversion rate borderline acceptable
- ❖ Darkling beetle infestation were high
- ❖ Chemical costs and antibiotic costs were high



# Project #1. Wayland Turkey Farm

## Post Path-Away® Methodology

- ❖ 10 sheds fully operational
- ❖ 8,000 birds per shed
- ❖ Average culled bird weight 45 Lbs/21.41 kg
- ❖ Mortality rate up to 19 weeks: 1-2 / week
- ❖ Feed conversion rate improved one (1) full point
- ❖ Darkling beetle infestation now negligible
- ❖ Chemical and anti-biotic costs reduced 50% ***with elimination of chemicals and medicinals.***



# Project #1. Wayland Turkey Farm

## Post Path-Away® Methodology

**Near elimination of ammonia odor allowing:**

- ❖ Elimination of “leg weakness” causing death
- ❖ Birds consumed more water
- ❖ Birds processed feed better to add weight
- ❖ Reduced external location complaints



# Project #1. Wayland Turkey Farm

## Post Path-Away® Methodology

- ✓ Approximately 210,000 birds culled annual
- ✓ Approximately 630,000 Lbs/285,763 kg extra meat
- ✓ Wholesale price = US \$1.35/lb

**Additional Net Profit with Path-Away Method**

**US \$850,500**



# Project #1. Wayland Turkey Farm

## Post Path-Away® Methodology

- ✓ Pre Path-Away® disinfectant / medicinal costs \$48,000
- ✓ Post Path-Away® disinfectant / medicinal costs \$ 24,000
- ✓ Post Path-Away® savings ..... \$24,000

**US \$850,500 + \$24,000 = \$874,500**



# Project #2: Georgia USA Chicken\*

- ❖ Began operation in 1949
- ❖ Offers more than 200 products to the industry
- ❖ Retail 300 million Lbs / 136 million kg annually
- ❖ Complete egg to market operation with processing
- ❖ Has own feed mill and hatcheries
- ❖ Exports 33 million Lbs / 15 million kg annually

\* Client requests anonymity

# Project #2: Georgia USA Chicken

## Typical shed size

- ❖ Size ..... 20,000 Sq Ft / 1,860 Sq mtrs
- ❖ Birds/shed/cycle ..... 26,700
- ❖ Cycles/shed/year ..... 7
- ❖ Birds/shed/year ..... 186,900
- ❖ Number of sheds ..... 700
- ❖ **Approximate birds/year ..... 130,830,000**



# Project #2: Georgia USA Chicken

## Average annual bird loss and \$ loss\*\*

- ❖ Average annual bird loss was 6%
- ❖ 130,830,000 birds total x 6% = 7,849,800 birds
- ❖ Average pre Path-Away® weight = 5.8 Lbs / 2.3 kg
- ❖ Wholesale \$ in US \$ = \$4.93 / Bird @ 5.8 Lbs

\*\* Based on one year projections

# Reduction In Bird Loss

- Pre Path-Away® bird loss = 7,849,800
- Post Path-Away® bird loss = 3,924,900



# Project #2: Georgia USA Chicken\*

**Post PathAway® Average weight gain = 10%**

**6.38 Lbs /2.9 kg**

**Post Path-Away® Revenue**

- ❖ 126,905,100 birds x US \$5.32 = US \$675,135,132
- ❖ Post PA: \$675,135,132 – Pre PA \$606,292,386

**Additional Net Revenue**

**US \$68,842,746**

\* Client requests anonymity

# Project #2: Georgia USA Chicken

## Post Path-Away® Profit Numbers

US \$68,842,746 additional profit

- US \$8,883,357 total Path-Away® costs

- **Net Positive Additional Revenue**

***US \$59,959,389***

***Represents an approximate 9% overall gain***



# Feed Storage Protection



**Feed Corn Storage Silos**

Some of the biggest issues with long term feed storage are fungi such as *Aspergillus niger*, *Alternaria*, *Drechlera*, *Nigrospora*, *Periconia* and *Penicillium*.

At 500 CFU/Bushel grain is not usable.

Pre Path-Away® treated silo @ 15 days: 17.5% moisture.

150-350 CFU multiple fungi

Post Path-Away® treated silo @15 days: 17.5% moisture

50-120 CFU two (2) fungi

# Project #3: Southern USA Poultry Farm

- ❖ Birds produced per year ..... 90,000,000
- ❖ Losses averaged 12% of chicks less than 5 days
- ❖ Extremely high ammonia levels
- ❖ Darkling beetles infesting and eating feed stock
- ❖ Bacteria species identified ..... 65
- ❖ EPA complaints
- ❖ Neighbor complaints
- ❖ Humane society complaints



# Project #3: Mississippi USA Poultry Farm

## Pre Path-Away® Method

- ❖ Ammonia count 67 ppm
- ❖ Ammonia produced 100+Lbs
- ❖ Bacteria identified 65
- ❖ Bird loss 12%
- ❖ Feed loss 500Lbs/cycle

## Post Path-Away® Method

- ❖ Ammonia count 3-8 ppm
- ❖ Ammonia produced < 5 Lbs
- ❖ Bacteria identified 2
- ❖ Bird loss 6%
- ❖ Feed loss < 50Lbs/cycle

## Notes:

- ❖ Birds go blind at 50 ppm ammonia levels.

# Path-Away® Use In Hatcheries

Microbial contamination of hatching eggs is a main concern of poultry producers as it causes poor hatchability and chick performance.

High standards of hygiene must be practiced in hatcheries in order to minimize the soiling of eggs but, further disinfection of eggs is also necessary to limit bacterial numbers.



# Path-Away® Use In Hatcheries

Methods used include the application of disinfectants by wiping, spraying, and dipping but, arguably, the most effective way of disinfection of hatching eggs is fumigation with **formaldehyde**. Eggs can be fumigated during incubation or just after the transfer to the hatchery, but most commonly it is prior to incubation. Formaldehyde is also a toxic chemical and, as such, can seriously damage the dormant embryo.

# Formaldehyde Vs Path-Away®

Formaldehyde	Path-Away®
Chemical based	Organic based
Eye contact hazard	Slight stinging
Skin contact hazard	None
Inhalation hazard	None
Ingestion hazard	None FDA approved ingredients
Flammable	Non-flammable
Safety glasses, respirator, gloves	Safety glasses only
Toxicity LD50 42 mg/kg	Toxicity LD50 180,000 mg/kg

**Formaldehyde is 4,285 x MORE Toxic than Path-Away®**



# Formaldehyde Vs Path-Away®

Formaldehyde	Path-Away®
Concentration/time sensitive. Suggested 20 minute time. Possible cuticle degradation.	Verified concentration/time it is effective in less than 5 minutes. Harmless to egg structure
Humidity of pathogenic genus	Humidity tolerant
Temperature sensitive Storage temperature critical	Thermo tolerant Not affected by storage temps
Organic matter content on shell affects efficacy by extending contact time	Efficacy on 170+ pathogens and not affected by organic surface material

# Formaldehyde Vs Path-Away®

## Product comparisons on egg mortality rate

Formaldehyde	Path-Away®
Effected by egg shell quality	Not affected
Effected by age of breeder stock	Not affected
Effected by actual egg size	Not affected
Effected by yolk-shell distance	Not affected
Effected by egg cuticle thickness	Not affected



# Other Hatchery Considerations

**Formaldehyde:** Eggs should not be fumigated between 24 and 84 hours of incubation. Developing embryos are particularly sensitive to formaldehyde gas between 24 and 96 hours of incubation, and embryonic mortality increased if exposed during this period.

**Path-Away®** Due to the organic molecular composition of Path-Away® coupled with its extremely low toxicity but high efficacy, embryonic mortality is minimized during prolonged or multiple applications.

# Other Hatchery Considerations

Newly hatched chicks can easily get infected by microbes even if the eggs were clean. Fumigation of eggs immediately after transfer to the hatchery can minimize the number of pathogenic microorganisms and thus increase the number of healthy chicks. Fumigation at this stage of the incubation requires great care because the embryo becomes a direct-air-breathing animal.

The organic, extremely low toxicity of Path-Away® makes this a safer procedure.



# Conclusions

1. Path-Away® is a safer product
2. Path-Away® is a more user friendly product
3. Path-Away® is a more effective product
4. Path-Away® will reduce your product losses
5. Path-Away® will extend your market share
6. Path-Away® will make you more profitable

# Call Today For More Information

PROTECTED BY



## NATURES PATH

POWERED BY PATH-AWAY ANTI-PATHOGENIC SOLUTION  
PATH-AWAY HAS BEEN PROVEN EFFECTIVE AGAINST OVER  
170 VIRAL, BACTERIAL AND FUNGAL PATHOGENS

[naturespathclt@gmail.com](mailto:naturespathclt@gmail.com)

980-406-4485