

Niltox – Unique mycotoxins binder in feed

Mycotoxin and their control are of prime interest in livestock and poultry industry. The effects of mycotoxin include immunosuppresion, poor growth besides hepatoxic, nephrotoxic and reproductive toxicity. Mycotoxins are considered as carcinogenic as well. There have been several strategies for control of mycotoxins. Most of the commercial options available today are restricted to adsorption of toxins. The dipolar toxins like aflatoxin can be adsorbed onto charged surfaces thereby minimising their availability in the gut.

Bio-transformation of the toxins is another isssue in this industry. The liver attempts to detoxify toxins and in the process the toxins are converted to epoxides and esters which are even more toxic. Hence, bio-transformation of toxins need to be minimised. Free radical mediated injury is another sequel to mycotoxin induced pathology. An effective toxin solution against mycotoxins should include not just a binder for toxins but also agents that prevent biotransformation toxins, and agents that combat free radicals.

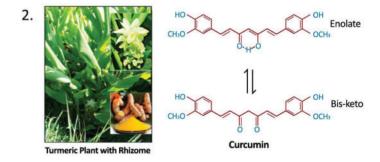
Niltox is a complete toxin solution that not only has a toxin binder but also molecules that prevent biotransformation of toxins and a superior antioxidant machinery. Niltox is a specially formulated feed supplement with combination of siliceous sediments of algea, curcuminoids and specific phytomolecules as a complete mycotoxin binder to combat mycotoxicosis in poultry and piggery.

Unique three ways strategy of Niltox



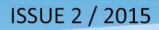
Diatomaceous Earth is a naturally occurring siliceous sedimentary mineral compound from unicellular.

<u>Diatomaceous earth</u> in Niltox effectively adsorbs bipolar toxins and develops a protective coating on the mucus membrane of the digestive tract. By this action, Niltox increases intestinal resistance against intestinal parasites such as coccidia. More importantly, it does not bind to nutrients.



<u>Curcuminoids</u>, a natural antioxidant present in Niltox prevents mycotoxin induced DNA adduct formation, DNA strand breaks and also prevent biotransformation of toxins to harmful compounds. By these actions it fights mycotoxin induced decline in production and immunity thus makes the animal better productive and resistant against diseases.

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 Specific herbal extracts / phytomolecules in Niltox stimulate the production of certain enzymes which inactive the epoxy and ester compounds of Trichothecenes and Zearalenone respectively.

Benefits:

- Adsorbs many types of mycotoxins.
- Improves immune respone by improving antibody titer.
- Protects intestinal epithelium from parasites.
- Reduces Aflatoxin level in finished pork products.

Administration

For both poultry and piggery, 500 grams per ton of feed for routine use.

1-2 kg per ton of feed in suspected cases.

Or as directed by nutritionist.

In-house study on efficacy of Niltox in poultry feed

Objective:

To evaluate in-vitro efficiency of Niltox on the adsorption of mycotoxins.

Materials and Methods:

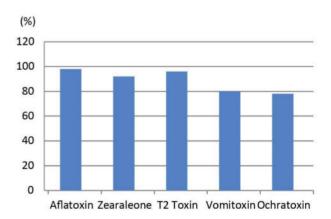
Naturally contaminated feed samples from different sources were taken, tested for mycotoxins and were used for the study. Each of the feed samples with tested toxin level as shown in Table 1 was used for analysis. The level of toxins were determined both before and one hour after addition of Niltox. Graph 2 expressed as percentage of reduction in the toxins determined after addition of Niltox.

Results:

Table 1: Addition of Niltox reduced the levels of toxins detected.

Feed sample	Type of toxin	Initial toxin level (mg/kg)	After treated with Niltox (mg/kg)
А	Aflatoxin B1	18.38	0.35
В	Vomitoxin	3.00	0.61
С	Zearaleone	0.18	0.02
D	T2 toxin	1.30	0.04
E	Ochratoxin	1.00	0.14

Graph 2: The percentage of the reduction levels is expressed in the graph below.



Discussion:

Diatomaceous earth in Niltox is a superior and promising binder for mycotoxins. This naturally available toxin binder along with superior antioxidants and free radical scavengers protect the cells and tissues of animals and birds at the cellular level. These results indicate the potential of Niltox as a complete toxin protection agent.



Topicure Plus - Innovation in Skin care

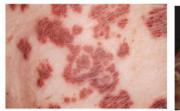
Skin is a soft outer covering of an animal, in particular a vertebrate. In mammals, the skin is the largest organ of the integumentary system made up of multiple layers of ectodermal tissue, and guards the underlying muscles, bones, ligaments and internal organs.

Normally there are two types of wound found on skin. An open wound is a type of injury which skin is torn, cut or punctured. Whereas a closed wound is blunt force trauma causes a contusion. In pathology, it specifically refers to a sharp injury which damages the dermis of the skin. The most common agents that induce pus formation are bacteria, such as *Staphylococcus aureus*. Tinea capitis, or ringworm on the scalp, is a common fungal infection. NATURAL REMEDIES

Below are some common skin disorder found in swine.



Necrosis in tail



Diamond skin disease

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Maggot wounds

The Innovation Solution – Herbal Spray for Comprehensive Skin Care Composition of Topicure plus:

Herbs	Active Phytoche micals / Markers Compound	Pharmaceutical Properties
Eucalyptus globulus (Tailaparna)	Eucalyptol (1,8-Cineole)	Maggoticidal, Anti-mircobial, Anti-inflammatory
Cedrus deo dara (Devadaru)	Phenols	Anti-bactirial, Anti-mircobial
Pinus longifolia (Sarala)	α- Pinene	Anti-bactirial, Anti-septic, Anti-mircobial
Pongamia glabra (Karanja)	Pongamol Karanjin	Strong fly repellent
Ocimum sanctum (Tulsi)	β-Caryophyllene Eugenol	Strong maggoticide



Lab Experiment

Objective : To judge the fly repellent property of Topicure Plus as compare with the competitor brand.

Activity : The bait was prepared (to attract the flies) as per Pickens GL (1973) with slight modification with 1 % yeast in invert sugar syrup and experiment was conducted as per Adler VE (1982).



Conclusion : It could be concluded that Topiure Plus has stronger fly repellent property as compare to competitor brand.

Features and Benefits of Topicure Plus

- Treats all kinds of wounds.
- Fly repellant.
- Effectively kills maggots and prevents reinfestation.
- Antibacterial and antiseptic.
- Helps in faster wound healing.
- Convenient for treating deep seated and wide spread lesions.
- Better spreadability and deeper penetration.
- Natural product and eco friendly.

Directions for use

- Shake well before use.
- Clean the affected part and spray sufficient quantity of Topicure Plus twice daily until complete cure is achieved.

Presentation

- 250 ml aerosol spray can

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Company event - staff outing

On 29th August 2015, PeterLabs conducted an outing trip for the foreign workers to Sunway and Putrajaya. Apart from being a social activity, the company wanted to reward the workers for all their hard work and continuous support. All our staffs are equally important to us. -- *By A.Abdullah*.



Group photo session taken before the outing trip.

Leisure time at the park.



Team enjoying the park activities.



Group photo session at Putrajaya.

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BOMBA Training - 21 & 28 Nov, 2015

Employees participated in the BOMBA training conducted on two weekends. Participants were given a clear understanding on the duties and responsibilities during an emergency, awareness on the dangers of fire and the skills needed for fire safety, prevention, guidance and in the use of fire fighting equipments. -- By A.Abdullah.



Employee trying his skill to use the extinguishers to put out a fire.



BOMBA demonstrating proper skills on the fire hose and hydrant.



Showing competence of using the fire hose.



Group photo session with BOMBA trainers.

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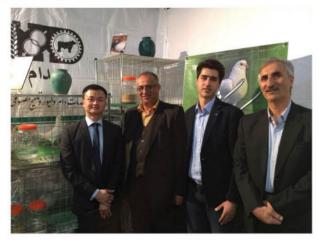


Recall exhibitions & seminar year 2015

In 2015, we have planned to visit and participate in a few exhibitions to promote our company and products. We have travelled to a few countries such as Iran, Bangladesh and Thailand. We have also visited other few countries in other continents to expand our business.

Among the exhibitions that we have participated are the 13th International Exhibition of Animal Husbandry, Fishery and Veterinary Equipment, Isfahan, Iran on 28-31 January 2015, the 9th International Poultry Show and Seminar in Dhaka, Bangladesh on 19-21 February 2015 and VIV Asia on 11-13 March 2015.

In Iran, we joined our distributor to meet their customers at the booth as well as meeting them at their farms and offices.





Dairy cow farm visit

In Bangladesh, we have a very traditional Bangladesh wooden style hut as our booth, and it is amongst the most unique booth there and attracted a lot of crowd and we manage to grab the chance to discuss and share our products with the visitors.





Our distributor in Bangladesh

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As in Bangkok, we do not have any booth and we were there just to meet our customers and suppliers for business discussion and meeting each other, as they have visited there as well.



We visited one of our supplier, Natural Remedies' booth.

We have also organized a seminar in Genting Highlands titled "Sustainability of swine production performance" during 3-4th of August 2015. There were 150 participants from all over the country took part in seminar. We have invited Professor Hsia Liang Chou from Taiwan, Dr Paiboon Sungnak from Intercons 3P, Thailand, David Saunders from Link Asia Partners, Singapore, Dr Lai Fui Chong from Novus International, Thailand, and Erik Rensink from Sloten, Netherlands as speaker and completed the seminar with meaningful and joyful.



Group photo session in Genting Highlands.



This year, we did not participate as an exhibitor in the Livestock Asia 2015 due to we have programs during that period of time. Thus, we were there as visitors and also we have invited a lot of our customers from overseas to participate the exhibitions and to support the exhibition. -- By YH Gan.



Lunch with customers after visited in Livestock Asia 2015.

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Niltox - 饲料中独特的霉菌毒素吸附剂

在畜牧行业,要如何抑制饲料中的霉菌毒素已 成为大众主要的关注点。霉菌毒素可导致家禽 的免疫力下降,影响成长,其毒素也使肝脏, 肾和生殖器官受到危害。霉菌毒素也被公认为 致癌物质。控制霉菌毒素的问题已有好几个策 略。现今市面上解决霉菌毒素的方案是采用吸 附毒素的方法。拥有两极性的霉菌毒素如黄曲 霉毒素是可被吸附在电荷表面,从而减少其毒 素在肠道中运作的能力。

毒素生物的转化是另一个被关注的问题。在肝 脏解毒的过程中,毒素将被转化为环氧化物和 酯,它的毒性甚至更高。因此,毒素生物的转 化是需要被控制的。由自由基造成的损伤也是 霉菌毒素间接引起的疾病。如果要有效的解决 霉菌毒素问题,吸毒剂除了含毒素粘合剂,其 功能还必须防止毒素生物的转化以打击体内的 自由基。

Niltox是一个完整的毒素解决方案。它不但具 有毒素粘合剂,而且还拥有防止毒素被生物转 化和抗氧化功能。Niltox是一种专一配制的饲 料添加剂,它由藻类,姜黄素和草药配合成一 个完整的霉菌毒素吸附剂,有效防治家禽饲料 中的霉菌毒素。

Niltox 三种独特的策略



Diatomaceous earth 是单胞藻所残留的一 种天然硅质沉积岩矿 物。

<u>Diatomaceous earth</u>有效地吸附两极毒素,也 提供一片保护层予消化道的粘液膜。因此, Niltox 能够提高家禽对肠道寄生虫的抵抗力, 特别是球虫问题。而且更重要的是,Niltox 不 会吸附肠道的营养物质。



姜黄素,是Niltox 里的一种天然抗氧化剂。姜 黄素防止霉菌毒素 DNA 加合物的形成,使到 DNA 的结构断裂,也防止霉菌毒素转化为对身 体有害的物质。姜黄素这独特抑制毒素的方法 能够使家禽发挥更好的生产表现以及对抗疾病 的能力。

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3. <u>特制草本精 / 植物分子</u> 是Niltox中的成分, 它 们 帮 助 激 发 一 些 酶 的 生 产 以 便 化 解 Trichothecenes和Zearalenone里的环氧树脂 和酯化合物。

Niltox的优点:

- 能够吸附许多类型的霉菌毒素
- 帮助增加抗体以提高免疫力
- 保护肠道皮层, 避免寄生虫滋生
- 降低猪肉产品中黄曲霉素的残留

使用方法

使用在鸡或猪, 日常用法:500克 / 吨饲料 治疗用法:1-2公斤/ 吨饲料 或依照营养师提供的建议。

研究Niltox在家禽饲料中的功效

试验目的: 探讨Niltox对霉菌毒素的吸附能力。

试验材料和方法:

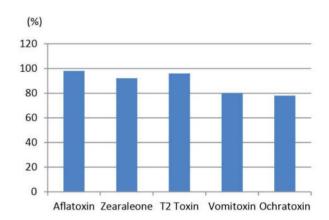
这项试验取得了来源不同的受污染饲料,饲料 中所含的霉菌毒素种类已被检测出以做研究。 每个饲料样本所含霉菌毒素的浓度如图表一所 示。确认饲料中的毒素浓度后,便加入Niltox 让它发挥其作用,一小时后再次测量饲料中的 毒素浓度。试验结果如图表二所示。

试验成绩:

图表一: Niltox能够减低饲料中的霉菌毒素。

饲料 样本	霉菌毒素种 类	饲料中 霉菌浓 度 (mg/kg)	添加 Niltox 后的霉 菌浓度 (mg/kg)
А	Aflatoxin B1	18.38	0.35
В	Vomitoxin	3.00	0.16
С	Zearaleone	0.18	0.02
D	T2 toxin	1.30	0.04
E	Ochratoxin	1.00	0.14

图表二 : Niltox对各种霉菌毒素所降低的百分比



试验商讨:

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Niltox里的diatomaceous earth(硅藻土)是一种顶级的霉菌毒素吸附剂。它是天然的吸附剂,附有优良的抗氧化剂和自由基净化剂足以保护动物的细胞和皮肤组织。这些试验结构证明了Niltox是一个完整的霉菌毒素吸附剂。



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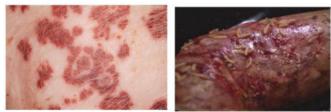
Topicure Plus – 创新的皮肤护理

皮肤是动物较软的外层,特别是脊椎动物。 哺乳动物身体最大的器官是皮肤,它外皮的 系统由外胚层所组织,围包了肌肉,骨骼, 韧带和内部各种器官。

皮肤上的伤口通常有两种。开放式的伤口是 指皮肤表层被撕裂,割伤或刺破。而封密式 的伤口则是大力度损坏的挫伤。在病理学里 ,它是由尖锐物所导致的皮肤伤害。通常导 致脓包形成的细菌是 Staphylococcus aureus。 头癣,或头皮癣,也是一种常见的感染。 以下是一些猪常见的皮肤疾病



尾巴细胞坏死



皮肤病

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伤口蛀虫

草药种类	草药成份	药物特性
Eucalyptus globulus (Tailaparna)	Eucalyptol (1,8-Cineole)	杀除蛆虫, 抗菌, 抗炎
Cedrus deodara (Devadaru)	Phenols	抗菌
Pinus longifolia (Sarala)	α- Pinene	抗菌,防腐作用
Pongamia glabra (Karanja)	Pongamol Karanjin	驱苍蝇作用
Ocimum sanctum (Tulsi)	β-Caryophyllene Eugenol	除驱虫

创新方案 - 草药喷剂全面呵护肌肤 Topicure plus的成份:





室内试验

试验目的: 比较Topicure Plus与其他竞争品牌的驱苍蝇效果

试验方法: 根据Pickens GL (1973)的试验方法准备好诱饵以吸引苍蝇。这试验也依据Adler VE (1982)的配方采用1%的酵母菌和糖浆混合成诱饵。



结论: 这试验证明了Topiure Plus比其他品牌拥有更强的驱苍蝇效果。

Topicure Plus的特点及好处:

- 能够治疗各种伤口
- 驱虫作用
- 有效杀灭蛆虫, 防止再次感染
- 抗菌和杀菌功能
- 有助于更快愈合伤口
- 方便治疗深层次和广泛的传播性的病变
- 更好的散发力和更深层的渗透伤口
- 天然的环保型的产品

使用方法

- 使用前先摇匀瓶罐。

- 先清理伤口然后才喷上适量的Topiure Plus一天两次直到伤口痊愈。

容量 250 毫升喷瓶



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员工出游记

PeterLabs于2015年8月29日为外国劳工举办了到双威乐园和吉隆坡布城的一日游。这除了是一项 社交活动外,该公司也希望借此机会奖励员工们的辛劳与他们的持续支持。所有的员工对公司都 十分重要。



出游前之团体合照。

大家聚在休闲公园里嬉乐。



HT

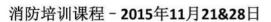
团队尽情地享乐。



团友们也不忘在布城拍照留下美好回忆。

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员工们参与了两个周末的消防培训课程。参与者从中了解到在火患紧急事件中应当扮演的角色和责任,也学习了不少防患的安全技能以及如何操作灭火的用具。



员工尝试运用灭火器灭火。



消防员示范了启动消防水管和消防栓 的正确方法。



员工们展示了灭火的技能。



参与者与消防部队合影留念。

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回顾2015年的展销会和交流讲座

在2015年,我们参与了一些展销会,以推动 公司的产品。我们到过几个国家,如伊朗, 孟加拉和泰国,也走访了另几个有潜力拓展 我们业务的国家。

我们所参与的展销会包括: 2015 年1月28 直 31日在伊朗的第13届International Exhibition of Animal Husbandry, Fishery and Veterinary Equipment,2月19直21日在孟加拉的第9届 International Poultry Show and Seminar 以及 3 月11直13日的VIV Asia。

在伊朗的展销会,我们与当地的代理商一起 会见到访的顾客。我们也被邀请探访一些顾 客的农场及办公室。





到奶牛农场的探访。

在孟加拉,我们拥有一个非常传统的孟加拉 风格木制小屋作为我们的展台,这是展厅里 其中一个最独特的展台,它吸引了不少来宾 的围观,我们也抓紧机会和来宾们分享及讨 论我们的产品。





与孟加拉代理商的合影。

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在曼谷的 VIV Asia,虽然我们今年没有设任 何的展台,但我们也到那里与我们的客户及 供应商进行商务洽谈。

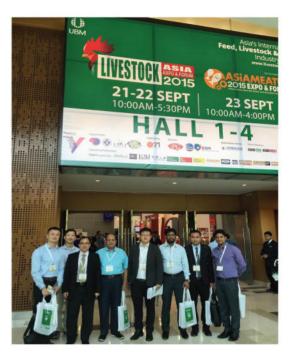


我们探访了供应商Natural Remedies的展台。

2015年8月3至4日, 我们在云顶高原举办了 一项研讨会,题为"养猪场生产率的永继经 营",一共有150名来自全国各地的参与者。 我们邀请了来自台湾的夏良宙博士,泰国 Intercons 3P的Paiboon Sungnak兽医,新加 坡Link Asia Partners的David Saunders,泰 国Novus International的赖辉昌兽医,荷兰 Sloten的Erik Rensink为主讲人,研讨会为参 与者带来了许多新知识和欢乐。



研讨会的大合影。



今年,我们并没有参加2015年的Livestock Asia展览会,那段时间我们编排了另一些活动。不过,我们邀请了很多来自海外的客户 前来大马参加这项展览会。



参观过展览会后与海外客户共进午餐。

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