F.E Newsletter 農友天地

A Newsletter For The Livestock & Pet Industries Vol. 02/2021 PP11076/10/2012 (030938)

远东联营有限公司
F.E VENTURE
SDN. BHD.
(Co No. 194120-U)

Lot 3 & 5
Jalan PJS 11/8
Bandar Sunway
46150 Petaling Jaya
Selangor Darul Ehsan
Malaysia

Telephone:
(03) 5633 3493
(03) 5632 3422

Facsimile
(03) 5634 9691
(03) 5632 3410

Email:
info@feventure.com
www.feventure.com

EDITORIAL COMMITTEE
編輯委員

James Ong / 王艨淙
Jolene Poo
EL Ong
Ray Tan
Vania Kiu
FF Wong
HY Chang
JY Wong
HY Gan
SH Chua

kersia
INVENTING A FOOD SAFE WORLD

TRIED • TESTED • TRUSTED

Introducing Aquatabs Inline by Kersia - Your partner in Water Security

Kersia 为您介绍 Aquatabs Inline – 您饮水安全的合作伙伴

Who are Kersia? / Kersia 是谁?

Kersia is a global leader in biosecurity and food safety with value added products and solutions to prevent diseases or contamination in both animal and humans at every stage of the food supply chain :

- For Food processing industry, addressing dairy processors, meat-producers and ready-meal producers.
- For Farming, pig & poultry Dairy segment as well as on the animal feed dietary/complements products, and aerial surface disinfection.
- For Healthcare, providing emergency water purification in disaster zones and surface disinfection in hospitals.

Kersia 是生物安全和食品安全领域的全球领导者，其附加值产品和解决方案可在食品供应链的每个阶段预防动物和人类的疾病或污染：

- 对于食品加工业，针对乳制品加工商、肉类生产商和即食肉类生产商。
- 用于农业、猪和家禽，乳制品领域以及动物饲料膳食/补充产品，和空气表面消毒。
- 用于医疗保健，为灾区提供紧急水净化，为医院提供表面消毒。

What makes Kersia experts in Water Security? 是什么让 Kersia 成为饮水的安全专家?

Aquatabs is a water purification solution used for emergency water treatment in disaster situations and for long term point of use household water treatment programmes all over the world.

Aquatabs are used by all of the world's major aid agencies, NGOs, relief organisations, peace keeping and Ministries of Health.

This high level of trust placed in Kersia from organisations, governments and business all over the world make Kersia an expert in the field of Water Security.

Aquatabs是一种水净化解决方案，用于世界各地灾难情况下的紧急水处理以及长期家庭饮水净化计划。

Aquatabs被世界所有主要的援助机构、非政府组织、救济组织、维持和平和卫生部对使用。

来自世界各地的组织、政府和企业对 Kersia 的高度信任使 Kersia 成为饮水安全领域的专家。

From Farm to Fork kersia

What is Aquatabs Inline? 什么是 Aquatabs Inline?

Developed to purify water in closed line systems; it is activated by water flow to kill microorganisms, eliminate bacteria and viruses and prevent biofilm build-up.

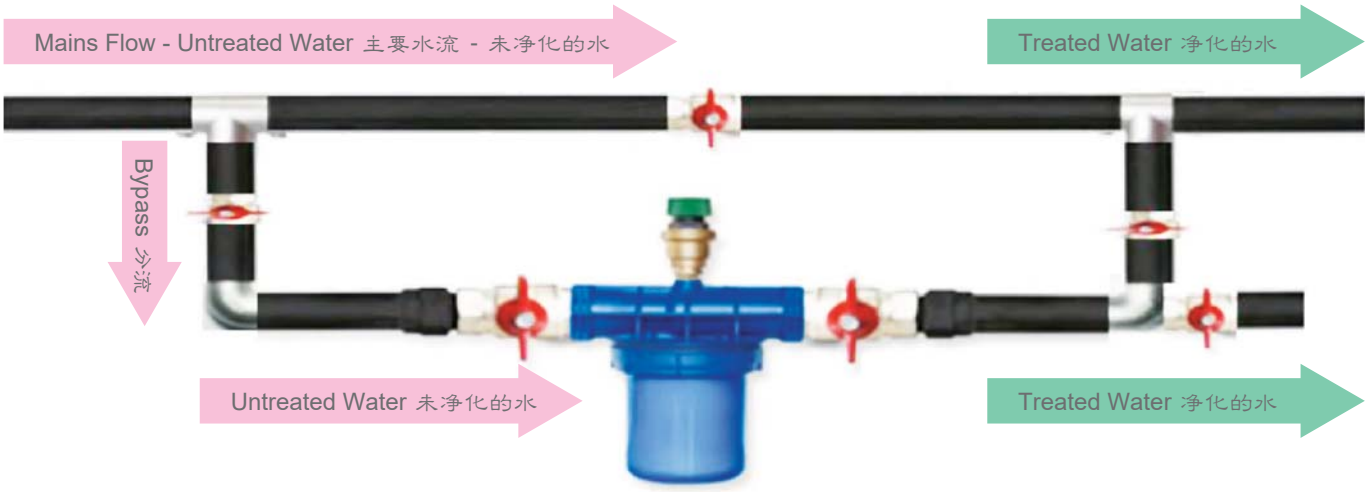
Integrated seamlessly into pressurized water treatment systems, Aquatabs In-Line disinfects at the point of entry. With no power required, continuous, automatic dosing occurs as water flows around the system.

Each cartridge purifies approximately 360m3 of water between 2-3 ppm. Simply replace the cartridge when ppm decreases below required output to ensure safe water, every time.

开发用于净化封闭管线系统中的水；它被水流激活以杀死微生物、消除细菌和病毒并防止生物膜积聚。

Aquatabs Inline 无缝集成到加压水处理系统中在入口处进行消毒。无需电源，当水在系统周围流动时，会持续地自动加药。

每个滤芯可净化约 360 立方米介 2-3 ppm 的水。每当（浓度）ppm 低于所需输出量时，只需更换滤芯即可确保安全用水。



What about the active ingredient? 活性成分?

The specialized formulation contained within the cartridge is made of TCCA. These solution dissolves in water and releases hypochlorous acid in situ (HOCl) into the water system.

This release of HOCl is the biocidal agent that kills viruses, bacteria and fungi from whilst also preventing the build up of biofilm in the water system.

This system makes the water safe and keeps it safe, unlike filters which do not disinfect the water.

包含在滤芯充填置内的特殊配方是由TCCA 所组成。这些溶液在水中分离并原位释放次氯酸 (HOCL) 到水系统中。

所释放的HOCL 是一种杀生物剂，可以杀死病毒、细菌和真菌，同时防止水系统中生物膜的形成。

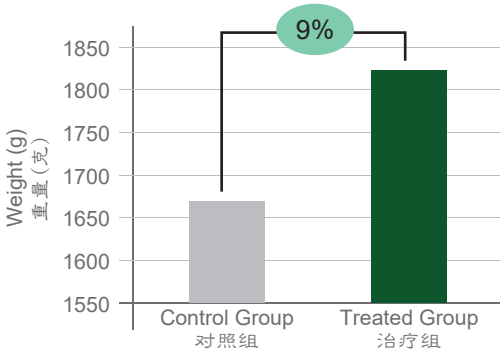
该系统使水安全并维持安全；不同与不对水进行消毒的过滤器。

Does it work? 它有效吗?

Broiler Farm 肉鸡场

Avrg weight (g) at the end of production
Control group VS Treated Group

生产结束时的平均重量（克）
对照组与治疗组



- +9% Additional weight gain for test group
- Mortality reduced 50%
- Additional 60 birds/1000

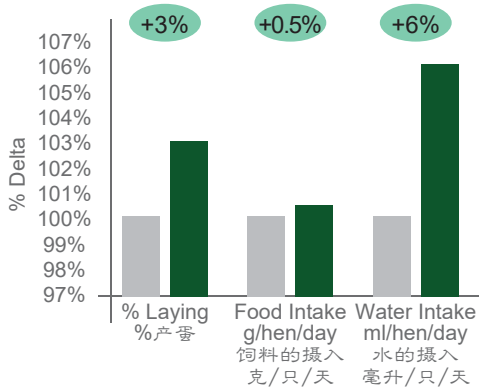
- 测试组额外增加 9% 的体重。
- 死亡率降低 50%
- 额外 60 只鸡/1000 只

From Farm to Fork kersia.

Layer Farm 蛋鸡场

Test Group VS Control Group indexed against control group

测试组 vs 对照组，
索引对照组。



- +3% avrg daily laying rate
- +6% Water intake/day
- Decrease in laying performance was 3.4X greater for control group

- 平均每日产蛋率额外增加3%。
- 额外每日增加6%的水摄入量。
- 对照组的产蛋性能下降幅度为测试组的 3.4 倍。

How to install? As easy as 1,2,3 如何安装？简单如1,2,3

1 Deep clean inside and outside of water pipes 深度清洁水管的内外

- Outside - Degrease (Alkaline detergent)
- Inside -Descale (Acid detergent)
- This step ensures the removal of biofilm and organic matter

- 管道的外部 – 脱脂（碱性洗涤剂）
- 管道的内部 – 除垢（酸性洗涤剂）
- 此步骤可确保去除生物膜和有机物

2 Terminal disinfection with HPPA / Virex 使用 HPPA / Virex 进行终端消毒

- Disinfect the inside of the pipes
- Products available:
  - HPPA-Paracetic Acid
  - Virex - Peroxygen based disinfectant
- This step improves efficacy over the life of the crop

- 对管道内部进行消毒
- 可用的产品：
  - HPPA – 过氧乙酸
  - Virex – 过氧消毒剂
- 这步骤提高了作物整个生命周期的功效

3 Install Aquatabs Inline 安装 Aquatabs Inline

- Add the system to the water inlet pipe
- Ensure system runs for 5 minutes
- Check for 0.2-0.5PPM active chlorine at the end of the drinking line

- 将系统添加到进水管
- 确保系统运行 5 分钟。
- 检查饮水线末端是否有 0.2-0.5ppm 的活性氯

Where can you find out more? 在哪里可以找到更多信息？

- Speak with your local distributor
- Check out our website by clicking **www.feventure.com**
- Watch this video on **YouTube**

- 与您当地的经销商交谈
- 点击这里查看我们的网站 **www.feventure.com**
- 在**YouTube**观看此视频

Important to remember: 记住重要的是：

- It may take a number of days to reach 0.2-0.5PPM whilst the system deals with the biofilm
- Subsequent installations do not require a deep clean

- 当系统处理生物膜时，可能需要几天的时间才能达到0.2-0.5ppm
- 后续安装不需要再深度清洁

*Install Aquatabs Inline **today** and ensure your investments are protected and delivering maximum returns*

即刻安装 Aquatabs Inline，确保您的投资受到保护并提供最大的回报

For further information, please contact us at F.E Venture Sdn Bhd 03-5633 3493 or Dr Jolene Poo 012-455 7827
有关详细的资料，请联络F.E Venture Sdn Bhd 03-5633 3493 或 Dr Jolene Poo 012-455 7827

OL-VAC ONE DAY

Newcastle disease (ND) has being regarded as the most important disease in poultry, vaccination is adopted worldwide, particularly in intensive rearing areas & endemic country. In areas of high exposure to ND, administration of a **live vaccine alone to young chicks is effective but does not provide complete protection,** as maternally-derived antibodies (MDA) may interfere with replication in live vaccines.

OL-VAC ONE DAY is recommended to reinforce protection against ND in very young broilers, even in the presence of high MDA titres due to its:

- ✓ High immunogenicity
- ✓ Overrun interference from maternally-derived antibodies
- ✓ No adverse reaction at injection site

鸡新城疫（ND）被认为是家禽中最重要的疾病之一，疫苗接种在全球广泛的采用，特别是在密集饲养区域和流行病的国家。在ND高暴露的地区，对幼雏接种单一活疫苗是有效的，但并不能提供完全的保护，因为母源抗体（MDA）可能会干扰活疫苗的复制。

建议使用 OL-VAC ONE DAY 以加强幼雏对抗ND的保卫能力，使其即使在母源抗体(MDA)滴度高的情况下也受到保护，因为它：

- ✓ 高免疫原性
- ✓ 超限来自母源抗体的干扰
- ✓ 注射部位无不良反应

PROPERTIES
OL-VAC ONE DAY is recommended for the vaccination of day-old broilers, concurrently with a live attenuated vaccine.

COMPOSITION
1 dose of vaccine contains: inactivated ND virus not less than: 50 PD_{50}

ADMINISTRATION
Subcutaneously in the neck.
0.1ml at day old

STORAGE
OL-VAC ONE DAY must be stored at a temperature between +2°C to +8°C (avoid freezing).

PACKING
250-ml vials (2500 doses)
500-ml vials (5000 doses)

特性
OL-VAC ONE DAY 推荐用于日龄肉鸡的疫苗接种，同时接种减毒活疫苗

成份
1 剂的疫苗含有：灭活的ND病毒不少于：50 PD_{50}

剂量
在颈部皮下注射
0.1 毫升在日龄肉鸡

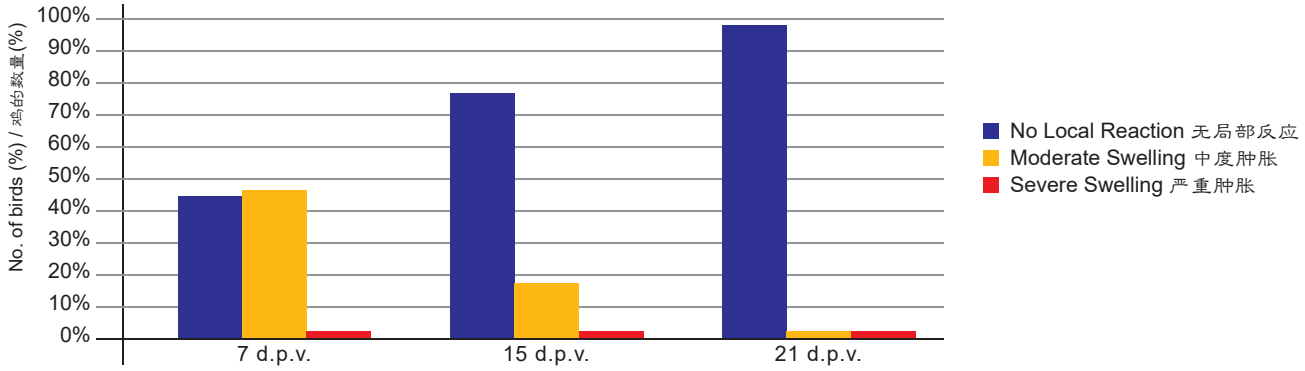
贮存
OL-VAC ONE DAY 必须储存在 +2°C 至 +8°C 的温度（避免冷冻）

包装
250 毫升瓶（2500 剂）
500 毫升瓶（5000 剂）

*After administration of **OL-VAC ONE DAY**, no abnormal local reactions at the injection site were found in vaccinated chicks **(Graph 1)**.*

注射***OL-VAC ONE DAY*** 后，接种小鸡的注射部位并没有发现异常的局部反应（**图1**）

Graph 1 - Local post-vaccination reactions 7, 15 & 21 days post-vaccination (d.p.v.) in day-old chicks vaccinated with OL-VAC ONE DAY
图 1 – 接种 OL-VAC ONE DAY 的日龄雏鸡在接种后 7、15 和 21 天的局部接种后反应



Vaccination of day-old chicks with **OL-VAC ONE DAY** & live ND vaccine induces the highest HI antibody titres & complete protection against challenge with NDV throughout the fattening period *(Tables 1 and 2)*.

用 **OL-VAC ONE DAY** 和 **ND** 活疫苗接种日龄雏鸡可诱导最高的 **HI** 抗体滴度，并在整个育养期间对 **NDV** 攻毒提供完整的保护（表 **1** 和 **2**）。

Table 1 - Vaccination of day-old broiler with OL-VAC ONE DAY concurrently with live ND vaccine: serological response
表 1 – 日龄肉鸡接种 OL-VAC ONE DAY 和 ND 活疫苗：血清学反应

Group N° 组别	Chick N° 鸡数	Vaccine and vaccination 疫苗和疫苗途径	Age at vaccination (days) 接种日龄（天）	Mean HI antibody titres in time (d.p.v.) 平均HI抗体滴度（接种后天数）				
				0	10	20	30	40
1	30	unvaccinated controls 未接种疫苗的对照组	-	*5.8	2.3	0.0	0.0	0.0
2	50	live ND spray	1	5.8	3.0	2.2	0.0	0.0
3	100	live ND + **OL-VAC ONE DAY**	1	5.8	4.8	5.8	6.7	6.3

* *Mean HI antibody titres expresses as log_2*
* 平均 HI 抗体滴度表示为log_2

Table 2 - Resistance to challenge with NDV of day-old chicks vaccinated with OL-VAC ONE DAY + live ND vaccine
表 2 – 接种 OL-VAC ONE DAY + ND 活疫苗的日龄雏鸡对 NDV 攻毒的抵抗性

Group N° 组别	Chick N° 鸡数	Vaccine and vaccination 疫苗和疫苗途径	Age at Challenge (days) 攻毒日龄（天）	Resistance to challenge N° of chickens surviving without showing any signs of disease/N° challenged 对攻毒的抵抗性存活而没有任何疾病迹象的鸡数量 / 攻毒数量
1	30	unvaccinated controls 未接种疫苗的对照组	21 42	0/15 (0.0)* 0/15 (0.0)
2	50	live ND spray	21 42	20/25 (80.0)* 12/25 (48.0)
3	100	live ND + **OL-VAC ONE DAY**	21 42	50/50 (100.0)* 50/50 (100.0)

* *(% resistance to challenge)*
* （对攻毒抵抗性的%）

Swine Enzootic Pneumonia (SEP)/ Mycoplasmal Pneumonia
猪地方性肺炎（SEP）/支原体肺炎

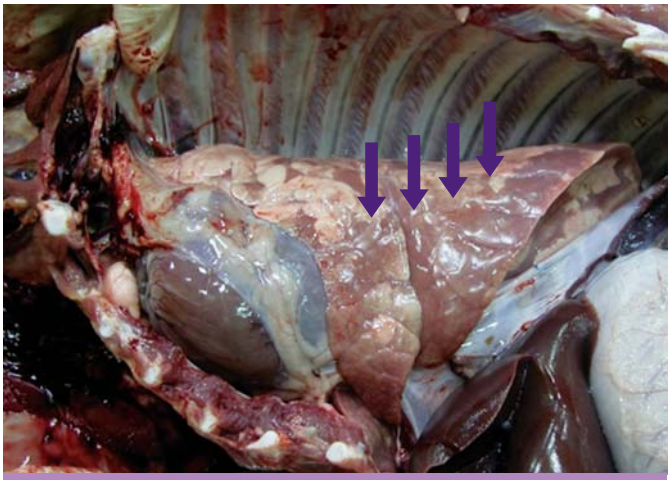
Introduction 引言

SEP is caused by a bacterium with absence of cell wall, known as *Mycoplasma hyopneumonia* (M.Hyo). It is endemic in most of swine farms in the worldwide. It causes chronic respiratory disease in the swine population. It is one of the pathogen in porcine respiratory disease complex (PRDC). This pathogen attacks the ciliated epithelium of respiratory tract (lung lobe) to produce lung tissue consolidation. It causes high morbidity with dry and non-productive cough symptoms but low mortality except complicated with other infections such as Porcine Circovirus Disease (PCV-2), Porcine Reproductive and Respiratory Syndrome (PRRS), *Pasteurella* spp. *Haemophilus parasius, Streptococcus suis* and *Actinobacillus pneumoniae*.

Poor husbandry management and poor ventilated building will cause sporadic “flare-ups” SEP infection especially in closely confined area with large numbers of pigs. This endemic disease cause major economic loss in pig industry as it affects the farm productive performance such as the feed conversion ratio (FCR) and average daily weight gain of pigs. In Malaysia abattoir, there is about 40-80% of lung lesion is related to SEP infection.

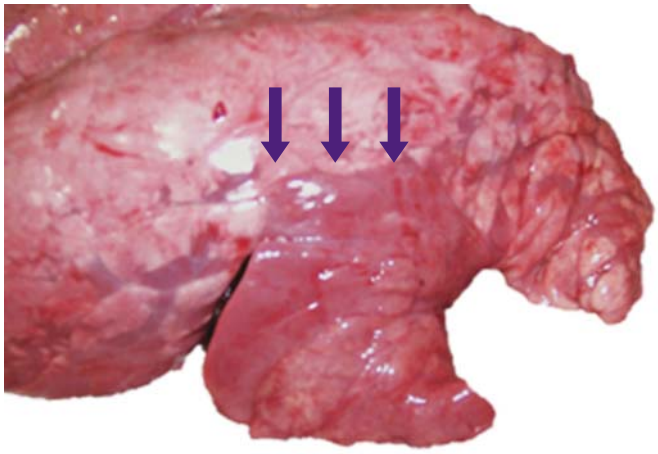
SEP 是由缺乏细胞壁的细菌引起的，称为猪肺炎支原体 (M.Hyo)。它是世界上大多数养猪场的地方病。它会导致猪群的慢性呼吸道疾病。它是猪呼吸道疾病复合体 (PRDC) 一部分的病原体。这种病原体攻击呼吸道（肺叶）的纤毛上皮，产生肺组织实变。它导致高发病率，具有干咳和非生产性咳嗽症状，但死亡率低，除非合并其他感染，如猪圆环病毒病(PCV-2)、猪繁殖和呼吸综合征(PRRS)、巴氏杆菌属副嗜血杆菌、猪链球菌和肺炎放线杆菌。

饲养管理不善和建筑物通风不良会导致 SEP 感染散发性“爆发”，特别是在有大量猪群的封闭区域。这种地方病会影响养猪业的生产性能，如饲料转化率（FCR）和猪的平均日增重，给养猪业造成重大经济损失。在马来西亚屠宰场，约有 40-80% 的肺部病变与 SEP 感染有关。



Severe pneumonia in lung of pigs that were co-infected with PCV2 and M.Hyo
Picture courtesy of Alex Ramirez, Iowa State University (Pig Progress)

PCV2 和 M.Hyo共感染的猪肺严重肺炎
图片由爱荷华州立大学的Alex Ramirez提供(Pig Progress)



M.Hyo infected lung of pigs
Picture courtesy of Dr. Maria Pieters

M.Hyo 感染猪肺
图片由 Maria Pieters 博士提供

Diagnosis 诊断

1. Clinical sign and post mortem examination (lung lesion examination in abattoir).

2. Oral fluids, oro-pharyngeal swabs or bronchoalveolar lavage can be collected ante-mortem for Polymerase Chain Reaction (PCR) whereas lung tissue sample can be collected postmortem. For sample with positive PCR result, gene sequencing had been developed recently to identify various strains of M.Hyo and differentiate between re-infection and a new strain.

3. Competitive ELISA (cELISA) can be used to diagnose the presence of M. Hyo in the herd through serum sample collection.

1. 临床体征和尸检（屠宰场肺部病变检查）。

2. 死前可通过收集口腔液、口咽拭子或支气管肺泡灌洗液进行聚合酶链反应(PCR)，而死后可以通过收集肺组织样本。如果 PCR 呈阳性，可用最新开发的基因测序识别猪肺炎支原体的各种菌株并区分再次感染和新菌株。

3. 可通过采集血清样本进行竞争式血清学检测（cELISA）来检查猪群是否感染猪肺炎支原体。

Treatment 治疗

1. Antibiotic treatment through water or feed in herd infected by M.Hyo should exclude penicillin, amoxicillin or cephalosporins (as M.Hyo does not have a cell wall, beta-lactam antibiotic are not effective against it); whereas Tetracyclines, quinolones and macrolides are effective for treatment.

2. Intramuscular injection is needed for individual pigs with severe clinical signs to control secondary bacterial infection.

1. 通过水或饲料在感染猪肺炎支原体的猪群中进行抗生素治疗应排除青霉素、阿莫西林或头孢菌素（因为猪肺炎支原体没有细胞壁，β-内酰胺类抗生素对其无效）；而四环素类、喹诺酮类和大环内酯类对治疗有效。

2. 临床症状严重的猪只需要肌肉注射控制继发性细菌感染。

Prevention and Control 预防和控制

1. Eradication protocol but it is hard to practice in Malaysia. (Farrow-to-finish sites farm)

2. Monitor new gilts introduced into the sow herd closely and treat all infected gilts against M.Hyo to eliminate M.Hyo from the farm environment as much as possible.

3. Appropriate pig stocking density with a clean environment and good ventilation are advised.

4. **Whole cell vaccinations** are effective to use in weaning pigs to eliminate challenge of new strain M.Hyo in the herd as well as minimizing the M.Hyo shedding in the herd. “Develop herd immunity, stop shedding”

1. 根除协议，但在马来西亚很难实践。（分娩至出栏的一站式农场）

2. 密切监测新引进母猪群的新小母猪，并针所有被猪肺炎支原体感染的新母猪进行治疗，以尽可能将猪肺炎支原体从农场环境中淘汰。

3. 建议采用适宜的猪群密度，保持环境清洁，及良好的通风。

4. 全细胞疫苗接种可有效地用于断奶仔猪，以消除新的猪肺炎支原体菌株对猪群的攻击，并最大限度地减少猪群中的 M.Hyo 脱落。“培养群体免疫力，停止脱落”

Myco-Suivax Key Features / Myco-Suivax 主要特点：

- ✓ Two special non-allergenic adjuvants
- ✓ Maximum antigen expression
- ✓ Safe and well tolerated also in very young piglets

- ✓ 两种特殊的非过敏性佐剂
- ✓ 最大化的抗原表达
- ✓ 在非常年幼的仔猪中也安全且耐受性良好

Sources（资料来源）

https://www.pig333.com/pig-diseases/enzootic-pneumonia-ep_38
http://lrd.spc.int/ext/Disease_Manual_Final/enzootic_pneumonia_of_pigs.html
https://pipevet.com/mycoplasma-pneumonia
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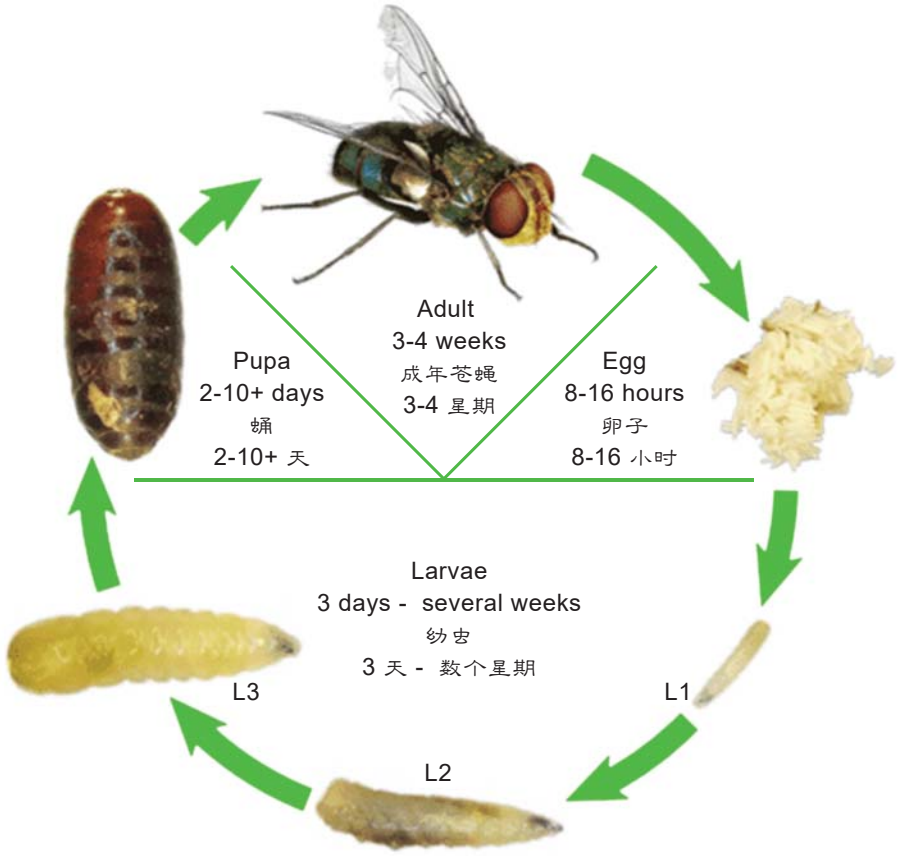
https://open.lib.umn.edu/swinedisease/chapter/enzootic-pneumonia/
https://www.pigprogress.net/Health/Health-Tool/diseases/Enzootic-Pneumonia-EP/

If they don't become flies, they don't become a problem
如果它们不变成苍蝇，它们就不会成为问题

Treating the problem at source
从源头上处理问题

Fly larvae outnumber adult flies by 4:1 so it is essential to use Cyrozine to control fly populations. Effective use of Cyrozine prevents future generations of flies from hatching on and around waste material.

苍蝇幼虫数量超过成年苍蝇 4:1，因此必须使用 Cyrozine 来控制苍蝇种群。有效的使用 Cyrozine 可以防止苍蝇在废料上和其周围孵化。



What Larva will Cyrozine kill
Cyrozine 会杀死什么幼虫

- Cyrozine controls the larvae of housefly *(Musca domestica)*, the lesser house fly *(Fannia canicularis)* and the stable fly *(Stomoxys calcitrans)*.
- Cyrozine 可控制家蝇 *(Musca domestica)*、小家蝇 *(Fannia canicularis)* 和螯蝇 *(Stomoxys calcitrans)* 的幼虫。

It is important, to remember that Cyrozine does not kill adult flies.

重要的是要记住，Cyrozine 不会杀死成年苍蝇。

How Cyrozine works Cyrozine 如何运作

Cyrozine is an insect growth regulator (IGR) based on cyromazine for the control of dipterous (fly) larvae. It is one of the triazines group and recent data indicates that cyromazine disrupts nucleic acid metabolism. This leads to retarded larval growth, interrupts the molting process and prevents normal pupation. By interfering with the chitin synthesis essential to larvae development, the larvae die during development.

Cyrozine 是一种基于 cyromazine 的昆虫生长调节剂（IGR），用于控制双翅目（蝇）幼虫。它是三嗪组中的一种，最近的数据表明环丙氨嗪会破坏核酸代谢。这会导致幼虫发育迟缓，中断蜕皮过程并阻止正常化蛹。通过干扰幼虫发育所必需的几丁质合成，幼虫在发育过程中死亡。

Treat early to get the best results 尽早治疗以获得最佳效果

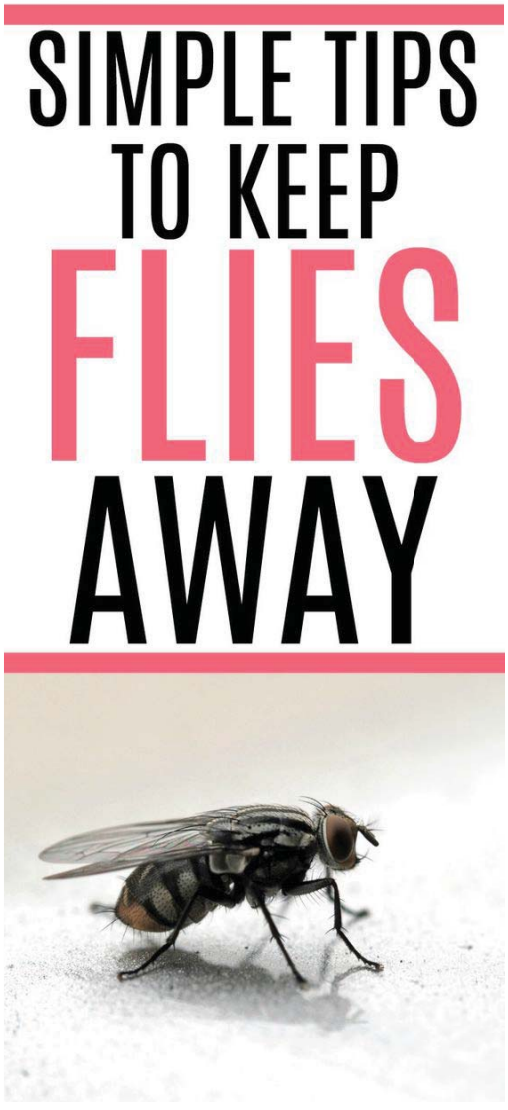
The buildup of fly populations is exponential. A single fly can lay more than 500 eggs in its short life so, if left to their own devices, fly population will grow very rapidly and become extremely difficult to get under control due to the scale of the established infestation.

苍蝇种群的积累是指数级的。一只苍蝇在其短暂的生命中可以产下 500 多个卵，因此，如果任其自生自灭，苍蝇的数量将迅速增长，并且会因已建立的侵扰规模而变得极难控制。

How to use Cyrozine 如何使用Cyrozine

Cyrozine 50 SP can be dissolved in water and sprayed. It should be applied directly onto the surface of manure and in those areas where flies lay eggs. Pay particular attention to the trough and drinking area where dung, water and spilled feed tends to accumulate.

Cyrozine 50 SP 可溶于水并喷洒。它应该直接施用于粪便表面和苍蝇产卵的区域。要特别注意粪便、水和溢出的饲料容易积聚的槽和饮水区。



Application and dosage 应用及用量

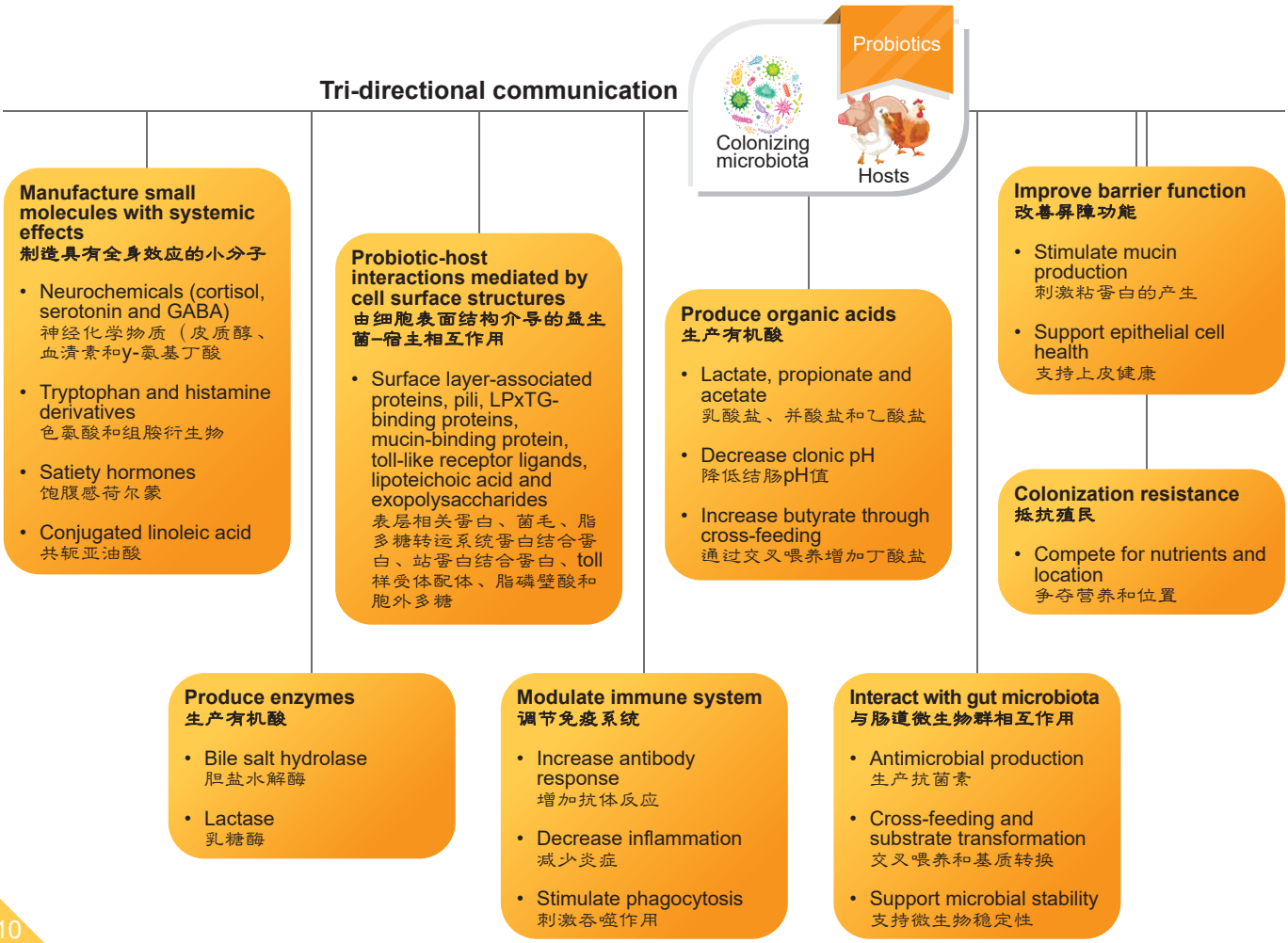
Product 产品	Application 应用	Dose rate 剂量率	Dung area 粪便区
Cyrozine 50 SP	Spraying 喷洒 Watering 浇洒	20g / 5L 20g / 15L	20m^2 20m^2

The word “probiotic” means “for life” and originated from the Greek language. The meaning of probiotics has changed over the years. In 1953, Werner Kollath offered the scientific community the term “probiotika” with definition as live micro-organisms that are essential for the healthy development of the gut for life. In 1965, Lilley and Stillwell redefined probiotics as micro-organisms that would aid in the growth of other beneficial micro-organisms in the gut. Effectiveness of probiotic supplementation can be attributed to the species of microbes and the form of supplementation used, such as wet or powdered.

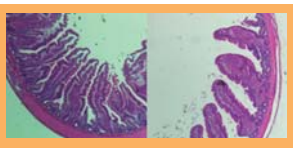
Furthermore, scientific experts concluded that properties, benefits and purposes of identified probiotics are individualized and specific to each strain. Also, unique strains ingested by the host have induced effects, which may cause other reactions in the body. For instance, bifidobacteria can release metabolic end products, such as acetate and lactate, which can decrease both gram-positive and gram-negative pathogenic microbes. More research needs to be completed to learn about metabolic effects that are induced by bacteria such as bifidobacterial. Sources of probiotics vary, but they can be isolated from milk, fermented foods, faeces or the gut microbiota of different animals. Species of lactic acid bacteria have become popular for humans, animals and poultry use because they can improve the ability to digest lactose if the individual is lactose-intolerant. Furthermore, species of lactic acid bacteria have been utilized to improve the health and growth of food animals. Probiotic benefits to host health are illustrated in the figure below:

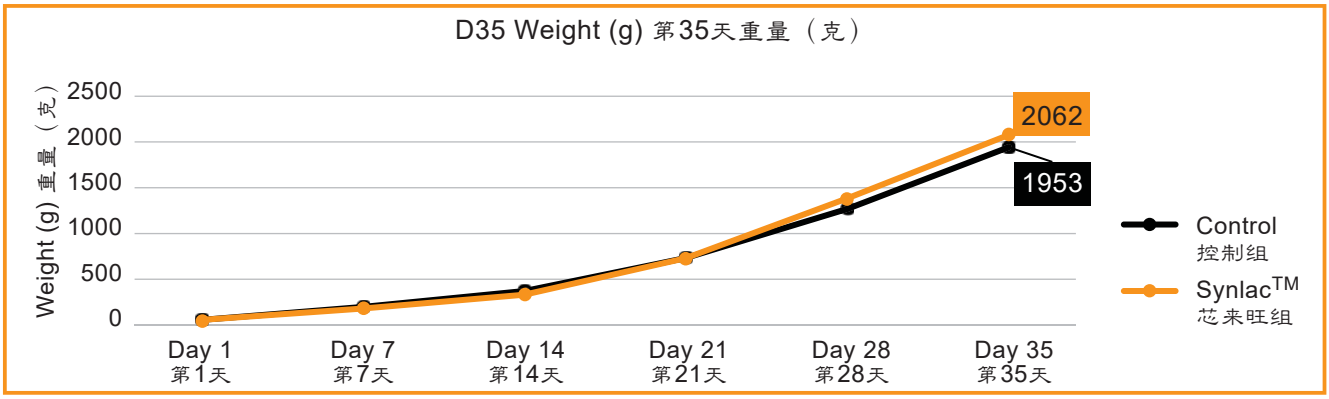
“益生菌”一词的意思是“供生”，起源于希腊语。多年来，益生菌的含义发生了变化。1953 年，Werner Kollath 向科学界提供了“益生菌”一词，其定义为对肠道健康发育至关重要的活微生物。1965 年，Lilley 和 Stillwell 将益生菌重新定义为有助于肠道中其他有益微生物生长的微生物。益生菌补充剂的有效性可归因于微生物种类和所用补充剂的形式，例如湿的或粉状的。

此外，科学专家结论指出，已识别益生菌的特性、益处和用途是针对每种菌株而个性化的。另外，宿主摄入的独特菌株会产生诱导作用，这可能会引起体内其他反应。例如，双歧杆菌可以释放如醋酸盐和乳酸盐的代谢终产物，以减少革兰氏阳性和革兰氏阴性的病原微生物。需要完成更多的研究来了解双歧杆菌等细菌引起的代谢作用。益生菌的来源各不相同，但它们可以从牛奶、发酵食品、粪便或不同动物的肠道微生物群中分离出来。乳酸菌的种类已在人类、动物和家禽当中流行使用，因为它们可以提高不耐受乳糖者的乳糖消化能力。此外，乳酸菌种类已被用于改善食用动物的健康和生长。益生菌对宿主健康的益处如下图所示：

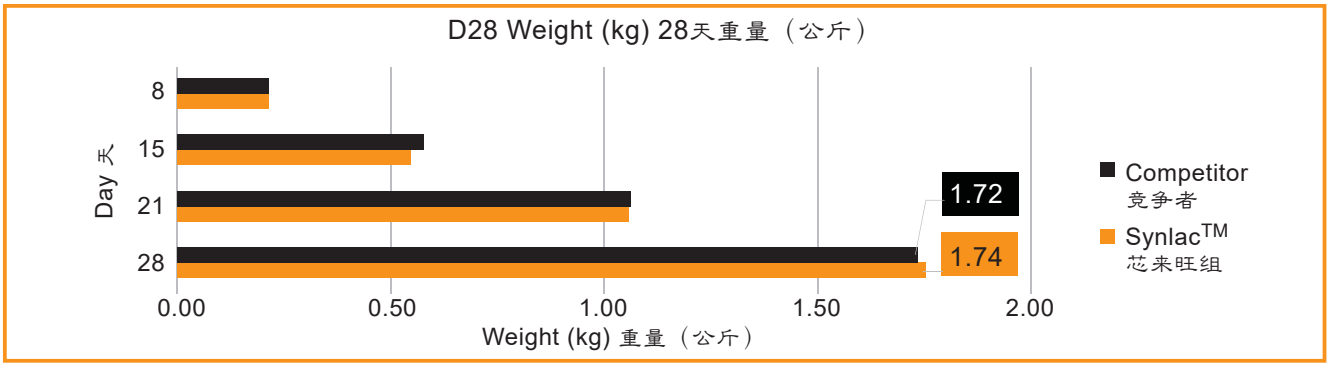


1. Broiler 肉鸡

Broiler Open House Trial Summary 开放式鸡舍实验总结		
	Control 控制组	Synlac™ 芯来旺
Synlac™ Regime 芯来旺方案	None 无	1 pkt for 10,000 birds 3 days/week for 5 weeks 1包供1万鸡，每星期3天长达5个星期
Average Weight (D35) 平均重量(35天)	1953g 克	2062g克
Total mortality 总死亡率	3.05%	4.33%
FCR 饲料转化率	1.49	1.43
Intestinal Histology 肠道组织学		



Broiler Close House Trial Summary 封闭式鸡舍实验总结		
Probiotic 益生菌	Competitor竞争者 *Strains included are Streptococcus faecalis, Bacillus mesentericus, and Clostridium butyricum	Synlac™ 芯来旺
Synlac™ Regime 芯来旺方案	Follow proposed dosage for 4 weeks 遵循建议的计量长达4周	1 pkt for 10,000 birds 3 days/week for 2 weeks 1包供1万鸡，每周3天长达2个星期
Average Weight (D28) 平均重量（第28天）	1720g 克	1740g 克
Total mortality 总死亡率	3.51%	2.95%
FCR 饲料转化率	1.267	1.246



Conclusion 结论

- Synlac™ can effectively improve broiler farm performance by
  - improving intestinal health
  - increasing average catching weight
  - reduces mortality
  - and significantly improves feed conversion ratio

- 芯来旺可通过以下方式有效提高肉鸡养殖场的生产表现
  - 改善肠道健康
  - 增加平均捕获重量
  - 降低死亡率
  - 并显着的改进饲料转化率

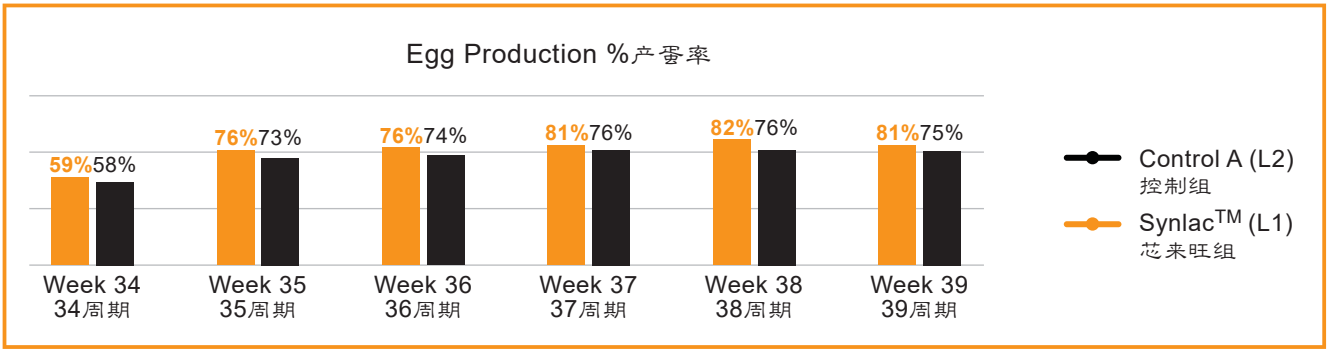
2. Layer 蛋鸡

- Received complaint from an open house layer farm with the problem below:
  - Sudden egg drop
  - Wet droppings
  - Abundant flies and larvae

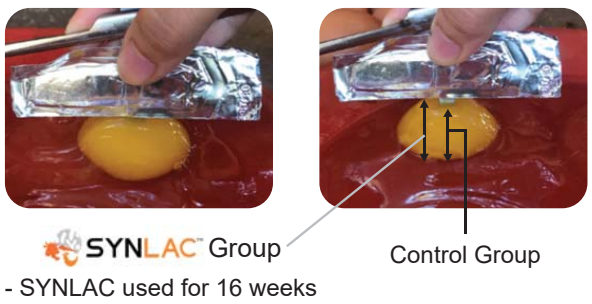
- 收到来自开放式蛋鸡养殖场的投诉，问题如下：
  - 突然掉蛋
  - 湿粪便
  - 大量的苍蝇和幼虫

Trial summary is as below 试验摘要如下：

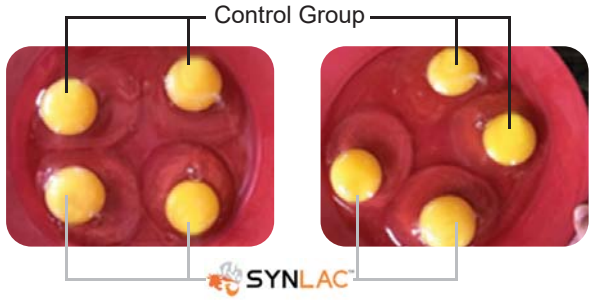
Group 组别	Control 控制组	Synlac™ treatment group 芯来旺治疗组



Synlac™ Regime 方案	None 无	1 pkt for 10,000 birds 3 days/week for 2 weeks 1包供1万鸡，每周3天长达2周
Initial Egg Production % 初始产蛋率	58%	59%
Current Egg Production % 目前的产蛋率	75%	81%
Faeces Condition at the End of the Trial 试验结束时的粪便状况		



Height of egg yolk is higher in Synlac™ Group
芯来旺组蛋黄高度较高



Thicker albumin in Synlac™ Group
芯来旺组蛋白较厚

Conclusion 结论

- Synlac™ can effectively improve layer farm performance by
  - improving intestinal health
  - drying of wet litter
  - improves egg production
  - and improves egg quality

- 芯来旺可通过以下方式有效提高蛋鸡养殖场表现
  - 改善肠道健康
  - 湿粪便变得干燥
  - 提高产蛋量
  - 并提高鸡蛋质量

For further information, please contact us at F.E Venture Sdn Bhd 03-5633 3493 or Dr Ray Tan 017-475 8679
有关详细的资料，请联络F.E Venture Sdn Bhd 03-5633 3493 或 Dr Ray Tan 017-475 8679

Dicetak oleh Onglim Printing Enterprise (001173790-P) 18, Jalan Metro Perdana Timur 7, Kepong Entrepreneur's Park, 52100 Kuala Lumpur.
Kreatif oleh Butterfly Creative Design (001760057-T) Tel: 012-331 3418