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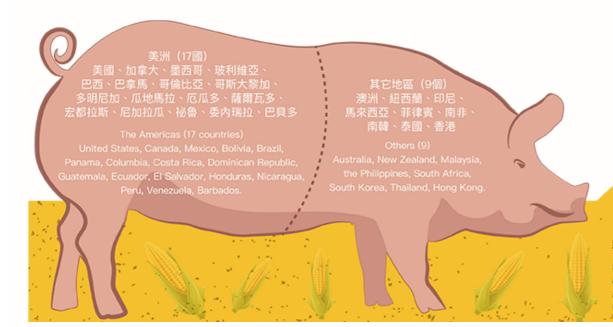
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日前衛生福利部公告自2021年1月起,開放符合訂定萊克多巴胺安全容許量的美國豬肉,以及30個月齡以上的牛肉進口台灣。一夕之間「美豬」議題引發政治、經濟面多方論戰,食安也成為消費者關切的重點,然而萊克多巴胺自1999年被核准作為飼料添加物,至今已有21年使用歷史,美國本土逾3億人口多年食用美國豬肉,亦無發病案例。面對美豬叩關,政府不僅制定較國際容許量更為嚴格的標準,並由食品藥物管理署委託第三方公正單位,進行不同年齡層的風險評估。無論立場為何,關於美國豬肉的優劣,皆須回歸科學真相,方能釐清爭議所在。

Recently the Ministry of Health and Welfare announced that from January 2021, U.S. pork containing safe residual levels of ractopamine will be allowed for import, along with U.S. beef from cattle aged 30 months and older. Almost overnight, U.S. pork has sparked political and economic debate everywhere, and food safety has again captured the attention of all consumers. However, since being approved for use as a feed additive in 1999, ractopamine has been used for 21 years with no cases of adverse effect in the U.S., which has a pork-eating population of over 300 million. With U.S. pork knocking on our doors, the government has set an allowable level that is stricter than international standards while having the Taiwan FDA contract a neutral 3rd party to perform risk assessment for different age groups. Regardless of your position, controversies regarding pros and cons of U.S. Pork import can only be settled with scientific facts.





## 合法使用萊克多巴胺國美 Countries in which Ractopamine is legal

26個國家(地區)登記核准可合法添加萊克多巴胺於飼料中,而澳洲 紐西蘭、印尼、菲律賓、馬來西亞、香港、越南等國, 以及飲食習慣與我國相近的日本、韓國,都已經開放含有萊克多巴胺的美國豬肉進口。

Ractopamine is authorized for use in feed additives in 26 countries (territories). Countries such as Australia, New Zealand, Indonesia, the Philippines, Malaysia, Hong Kong, and Vietnam, and countries with a diet similar to ours, such as Japan and Korea, have allowed the import of U.S. pork containing ractopamine.

## —— 科學佐證安全添加物 ——

Scientifically Proven Safe Additive

民眾對於美國豬肉產生疑慮的主因,為部分豬隻餵養飼料中俗稱「 瘦肉精」 的添加物,正式名稱為乙型受體素( $\beta$ -agonists),作用是提高畜產的瘦肉比例、增加飼料換肉率,簡言之,能減少飼料用量,提升飼養經濟效益。不過瘦肉精種類多達40多種,萊克多巴胺僅是其中之一且毒性較低的類型,由於屬水溶性化合物,在豬隻體內**代謝速度很快、安全性高**,依據世界衛生組織食品添加物聯合專家委員會(JECFA)研究顯示,當萊克多巴胺進入動物體內,24小時後其代謝率高達85%以上,假使人體口服後6小時也可排除約72%,基本上不會產生長期殘留體內之副作用。

The main reason the public is concerned about U.S. pork is that some of it is raised on feed with the so-called "leanness enhancing drug" additives. β-agonists, the formal name of the class of additives, acts to enhance leanness and feed conversion efficiency in livestocks. In short, it reduces the amount of feed used and improves the economic benefits of raising livestocks. However, there are more than 40 types of "leanness-enhancing drugs" and ractopamine is of the type with a lower toxicity. Since it is water-soluble, ractopamine is metabolized quickly by pigs and very safe. According to research by the Joint FAO/WHO Expert Committee on Food Additives (JECFA), when ractopamine enters an animal's system, at least 85% of it is eliminated after 24 hours. Even humans can eliminate 72% of it 6 hours after oral intake, which basically means that it will not remain inside the body for the long-term.

## — 全球26國認定安全無虞 ——

Considered Safe by 26 Countries Worldwide

坊間謠傳有160多個國家禁用萊克多巴胺,以訛傳訛引起民眾驚慌,實際上,萊克多巴胺目前於美國、加拿大、巴西等17個美洲地區國家,加上澳洲、紐西蘭、印尼、馬來西亞、菲律賓、南非、南韓、泰國、香港,一共26國和區域皆被核定安全無虞,可合法添加在動物飼料中。由於只在「大規模商業飼育家畜動物」的國家如美國、加拿大,或及「肉品主要出口」國家,包括韓國、墨西哥等地,製造商才會提出准許使用萊克多巴胺的申請,因此並非核淮少而是申請國家數少,造成多國禁用的誤解。

Rumors are spreading about ractopamine being banned in over 160 countries. In actual fact, ractopamine has been considered safe in 26 countries and territories, including 17 countries in the Americas such as the U.S., Canada, and Brazil, as well as Australia, New Zealand, Indonesia, Malaysia, the Philippines, South Africa, South Korea, Thailand, and Hong Kong, where it is a legal additive in animal feed. Only producers in countries that raise livestocks on a large, commercial scale, such as the U.S. and Canada, and countries with major meat export markets, such as Korea and Mexico, would apply for a permit to use ractopamine. Therefore it is not that ractopamine is rarely approved for use, it is that the number of countries with producers that apply for a permit is few, creating the misconception that ractopamine is banned in many countries.



## **—— 美豬早已登台15年 ——**

U.S. Pork Has Been in Taiwan for 15 Years

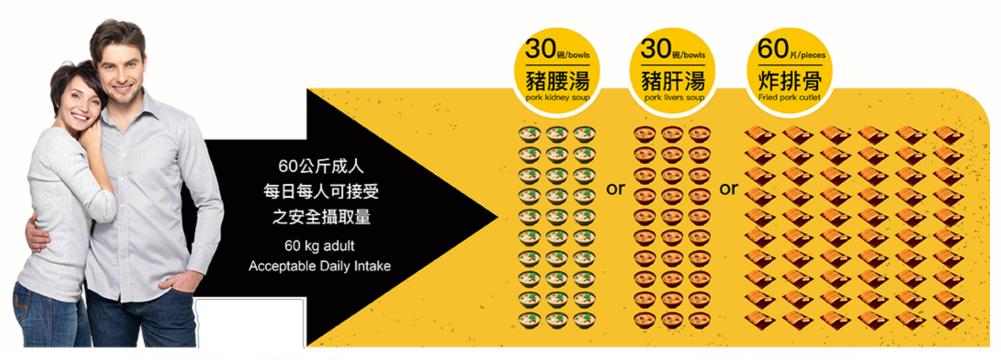
美國豬肉入台引發社會議論,然而台灣於2005年早已開放美國豬肉進口,15年來進入國門的美國豬肉產品達50萬公噸,國人食用至今並未出現任何臨床案例。當中以「冷凍肉」及「雜碎」為最大宗,每年佔比約在98~99%之間,其餘「生鮮冷藏肉」、「調製肉」、「肉罐頭」等項目數量較少。美國豬肉外銷全球一百多個國家,除了墨西哥、澳洲、紐西蘭等國家,也有飲食習慣與台灣相近的香港、日本、韓國等地,更重要的是,美國出口豬肉含有萊克多巴胺的比例少,大多為無使用萊克多巴胺飼育的豬隻,而逐步放棄在飼料中添加瘦肉精成分,將是全球畜產業的趨勢。

The import of U.S. pork has stirred discussions in Taiwan. However, Taiwan has already allowed the import of U.S. pork since 2005. During the past 15 years, as many as 500 thousand tonnes of U.S. pork products have entered the country and been consumed by our citizens without any clinical cases emerging. Frozen meat and offal constitute the majority of the import, about 98 to 99 percent, while fresh refrigerated meat, processed meat, and canned meat account for a small fraction of the numbers. U.S. pork is exported to over 100 countries worldwide. In addition to Mexico, Australia, and New Zealand, U.S. pork is also exported to places with a similar diet to Taiwan, such as Hong Kong, Japan, and Korea. More importantly, U.S. pork containing ractopamine only accounts for a small fraction of export. Most of the exported pork comes from pigs that have not been fed ractopamine, as the world livestock industry gradually moves away from adding leanness enhancing drugs in feed.



2019年進口豬肉佔台灣整體豬肉市場10%,而當中美國豬肉約佔進口豬肉總量15.5%。

In 2019, imported pork accounted for 10% of the overall pork market in Taiwan. U.S. pork accounted for about 15.5% of the total pork import.



## 台灣規範較國際標準嚴格

Taiwan Regulations Stricter than International Standards

衛福部日前公布的萊克多巴胺殘留容許量標準,為肌肉、脂肪、豬皮 0.01 ppm,腎臟與肝臟為 0.04 ppm,其他可供食用部位如胃、腸、心、肺、舌、肚、腦、血等為 0.01 ppm,較其他國家與聯合國國際食品法典委員會(CODEX)通過的殘留標準更嚴格。

The Ministry of Health and Welfare recently announced the level of residual ractopamine allowed as follows: muscle, fat, skin 0.01ppm, kidney and liver 0.04ppm, other edible parts such as stomach, intestines, heart, lung, tongue, brain, and blood 0.01ppm. These allowed residual levels are stricter than standards established in other countries and by the Codex Allimentarius.

部位Cut	Codex (ppb)	台灣 Taiwan (ppm)	美國 U.S. (ppm)	加拿大 Canada (ppm)	澳洲 Australia (ppm)	日本 Japan (ppm)	韓國 Korea (ppm)	紐西蘭 New Zealand (ppm)
肌 肉 Muscle	10	0.01	0.05	0.01	0.05	0.01	0.01	0.01
賢 Kidney	90	0.04	7.42	0.09	0.2	0.09	0.09	0.09
	40	0.04	0.15	0.04	0.2	0.04	0.04	0.04
脂肪Fat	10	0.01	-	-	0.05	0.01	0.01	0.01
		0.01					0.09	
其他可食用部位 Other Edible parts		0.01				0.04	0.01	

Codex於 2012年 7月 5日 通過 萊克多巴胺之殘留標準。表中 所示「--」,表示該國目前未 訂有該類產品之標準。

Codex passed a standard for ractopamine on July 5th, 2012. "--" indicates the country has not yet set a standard for such products.

資料來源:衛福部公告之風機評估報告\_1090831\_食用肉品暴露菜克多巴胺之健康風險 Source: Risk Assessment Report posted by Ministry of Health and Welfare: Health Risks Associated with Exposure to Ractopamine through Consumption of Meat Products (https://www.fda.gov.tw/TC/site.aspx?soid=11349)

## — 每日食用難超標

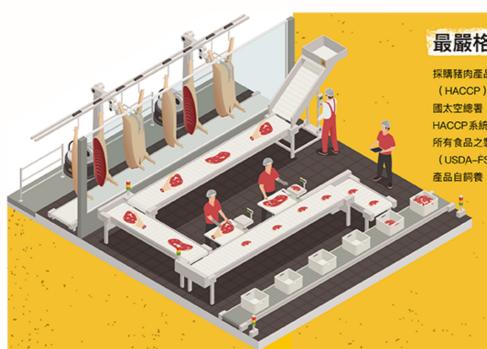
Near Impossible to Exceed ADI

衛福部依據日本、澳洲、JECFA及台灣評估,公告成人每日每公斤體重可接受之安全攝取量(ADI),萊克多巴胺每日安全攝食量為1微克(即一百萬分之一公克),以體重60公斤的成人為例,每天合計安全攝取量60微克,60微克除以容許量10微克,試算出每人每日安全食用的肉品量高達6公斤,即使每日吃到6公斤含萊克多巴胺的豬肉,也無健康風險。

The Ministry of Health and Welfare announced an Acceptable Daily Intake (ADI) of ractopamine per kilogram body weight for an adult to be 1 microgram, (or 1 millionth of a gram), based on assessments conducted by Japan, Australia, JECFA, and Taiwan. For an 60 kg adult, that means the ADI is 60 micrograms. 60 micrograms divided by the allowed residual of 10 micrograms in meat yields an acceptable daily intake of 6 kg of meat products, i.e. even eating 6 kg of pork containing ractopamine a day carries no health risk.

部 位 Part	每日每人可接受之安全攝取量(60公斤成人) Acceptable Daily Intake (60 kg adult)	相當於 Equivalent Food
腎 Kidney	1.5 kg	30碗豬腰湯 (50g/碗bowl) 30 bowls of pork kidney soup
肝 Liver	1.5 kg	30碗豬肝湯 (50g/氮bowl) 30 bowls of pork liver soup
豬肉或脂肪、豬皮 Pork or fat, skin	6 kg	60片炸排骨 (100g/Hpiece) 60 pieces of fried pork cutlet

圖:萊克多巴胺安全食用量 Acceptable Intake of Ractopamine



#### 最嚴格的檢驗系統 Strictest Inspection System

採購豬肉產品,美昧之餘更重要的是肉品衛生安全,美國除了屠宰場及肉品工廠強制實施危害分析重要管制點 (HACCP)系統外,養豬場亦導入該系統,衛生管理落實在產業鏈各個環節。HACCP系統始於1970年初期美 國太空總署(NASA),為研發無安全顧慮的太空食品,進而發展出預防食物在生產過程遭受污染的管制系統, HACCP系統為世界公認最有效之食品安全管理系統,強調源頭管理模式,從農場至餐桌 (from farm to table ). 所有食品之製造過程均依據 HACCP 制度執行的產品品質安全保證系統。1996年美國農業部食品安全與檢驗局 (USDA-FSIS)頒布規定,所有家畜肉和家禽工廠皆須制定和實施 HACCP 計畫,在此嚴謹控管下,美國豬肉 產品自飼養、屠宰、分切、包裝到配送、都具備最高標準的品質保證。

> When it comes to purchasing pork products, sanitation and safety of the meat product is more important than the delicious taste. In the U.S., the hazard analysis and critical control points (HACCP) system is mandatory for slaughterhouses and meat product plants, while pig farms are also adopting the HACCP system. Sanitation control is implemented at every link in the industry chain. The HACCP system was developed by NASA in the early 1970's to prevent food from being contaminated in the production process as part of their effort to produce food for space with no safety issues. The HACCP system is recognized as the most effective food safety management system. The system emphasizes source management and guarantees the safety of food products that follows HACCP at every production step from farm to table. In 1996, the U.S. Department of Agriculture Food Safety and Inspection Service (USDA-FSIS) issued the regulation that all livestock and poultry plants must develop and implement the HACCP program. Under such strict controls, U.S. pork product quality is guaranteed by the highest standard from raising the animal to slaughtering, cutting, packaging, and distribution.

## 美國現行HACCP系統

The Current HACCP Approach



#### 屠體分切 Carcass Cutting

- \*操作所使用設備、器具全面洗淨與消毒
- \*每次操作後的刀具、雙手消毒
- \*切開檢查每頭牲畜的內臟、頭部、淋巴

Cleaning and disinfecting all equipment and tools prior to use Disinfection of cutting tools and hands after operation

Cutting open intestines, head, lymph nodes of every animal for inspection



#### 屠體清洗 Carcass Cleaning

- \*利用有機酸殺菌





#### 屠體冷卻室 Carcass Refrigeration

- \*冷卻、乾燥表面,抑制微生物生長
- \*檢查微生物

Cool and dry surface to suppress microbe growth Check for microbes





#### 出口台灣 Export to Taiwan

\*全程冷鏈物流、嚴密控管溫度, 裝貨出口到台灣

End-to-end cold chain logistics to Taiwan with strict temperature control





#### 真空包裝、裝箱 Vacuum packaging and container loading

- \*採用直空
- \*產品由工廠開始運送至賣場皆 維持低溫,抑制微生物生長

Vacuum packaging

Product is refrigerated during transportation from plant to point of sales to suppress microbe growth





#### 分切屠體 Carcass Cutting

- \*作業前操作所使用設備、器具須洗淨、消毒
- \*每次操作後的刀具、雙手消毒

Cleaning and disinfecting all equipment and tools prior to use

Disinfection of cutting tools and hands after operation















## **— 科技控管規格與食安 ——**

Food Safety and Quality Control with Technology

美國為世界最大豬肉出口國之一,高科技的大規模經營,使得豬隻飼養效率高、成本低,輔以加工廠設計靈活,生產者能以電腦聯網即時監控作業,因而能出口物美價廉又能滿足肉品業者和消費者需求的高規格肉品。豬肉一般分為生鮮與供加工使用,生鮮肉對而消費者而言看重顏色、多汁性、嫩度、大理石紋、脂肪含量等與食用品質有關,而加工廠商關切肉品結構、黏度、水含量、酸鹼值、蛋白質和脂肪等加工特性。美國養豬協會(NPPC)數十年來持續參與制定豬肉品質標準,規範兼具健康美味與衛生安全的豬肉,因而能穩定供應分切部位多元、食安有保障的美國豬肉。

The United States is one of the world's largest pork exporters. Its producers leverage technology to operate on a large scale so they can raise pigs with high efficiency and low cost while the flexibility of the processing plant allows the producers to monitor operations in real-time a computer network. In this way, they can export high-quality meat products that can satisfy the demand of both businesses in the meat industry and consumers alike at a competitive price. Pork is divided by usage into fresh meat and meat for processing. When consumers look at fresh meat, they are looking for color, succulence, tenderness, marbling, fat content and other quality-related characteristics. Processing plants, on the other hand, care more about characteristics related to processing such as structure, viscosity, moisture content, acidity, protein, and fat content. The National Pork Producers Council (NPPC) has participated in developing pork quality standards over the past few decades regulating pork so it can be healthy and delicious without compromising on sanitation and safety. Such standards are what allow U.S. pork to maintain diversity and stability in the supply of various cuts while guaranteeing food safety.

#### - 品質保證計畫升級版 ---

**PQA Plus** 

作為畜牧農產大國,美國豬肉生產者在農場管理過程中,相當重視環境永續發展,許多業者在農場建築上運用生態工法,將污染降到最低。而美國豬肉工會為了回應客戶與消費者對動物人道飼養議題的關注,自2007年提出「豬肉品質保證計畫升級版(PQA Plus)」,確保維持國際最高品質與最高食品安全標準,該項計畫提供美國豬肉生產者相關飼育資訊,包含接受認證的 PQA Plus 顧問專業訓練並取得證書,或是針對農場動物的飼養狀況進行客觀評估,培養農場成為 PQA Plus 計畫中,促進豬肉品質再升級以及人道飼養計畫中的一環,顯示美國豬肉產業重視社會責任的態度。

As a major livestock supplier, U.S. pork producers puts emphasis on maintaining a sustainable environment in their farm management practices. Many businesses adopt ecological engineering methods when constructing the farms to minimize pollution. To respond to client and consumer attention on the issue of humanely raising animals, the U.S. Pork Board launched the Pork Quality Assurance Plus (PQA Plus) program in 2007 to ensure the highest quality in the world and the highest food safety standard. The program provides U.S. pork producers with information on how to raise the animals, offers PQA Plus consultant certification programs, and provide objective evaluation of animal living conditions on the farm. By helping farms to upgrade pork quality and raise animals humanely to become a part of the PQA Plus program, the U.S. pork industry demonstrates that it cares about its social responsibilities.



#### 背脊部 Loin

豬背脊肉 Pork Loin

背脊 (豬排) Pork Loin, Center Cut, 11 Ribs, Bone-In 去骨里肌肉(肉眼)Pork Loin, Center Cut, 11 Ribs, Boneless 加拿大式背脊肉 Pork Loin, Canadian Back

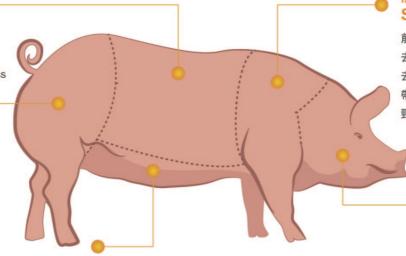
豬腰內肉 Pork Loin, Full Tenderloin

背小排 Pork Loin, Back Ribs

## 後腿部

#### Leg

後腿肉 Pork Leg (Fresh Ham), Short Shank 後腿腱 Pork Leg (Fresh Ham), Hind Shank 外側腿肉 Pork Leg (Fresh Ham), Outside 內側腿肉 Pork Leg (Fresh Ham), Inside 和尚頭 Pork Leg (Fresh Ham), Tip (Knuckle) 後腿蹄膀 Pork Leg (Fresh Ham), Hocks



#### 肩胛部 Shoulder

前腿肉 Pork Shoulder, Picnic 去骨前腿肉 Pork Shoulder, Picnic, Boneless 去骨肩胛肉 Pork Shoulder Butt, Cellar Trimmed, Boneless

帶骨蹄膀(德式豬腳)Pork Shoulder Hocks

頸骨(肩胛排、唐排)Pork Neck Bones

下顎部 Jowl Meat

#### 腹脅部 豬腹劑 Belly 中式腦

腹脅部 豬腹脅肉 Pork Belly

中式腹齊肉 Pork Belly, Single-Ribbed, Skinless 豬腩排 (聖路易型) Pork Spareribs, St. Louis Style 豬腩排 (胸骨) Pork Spareribs, Brisket Bones

## - 豬肉部位分切圖

Pork Cuts





#### 美國科技飼養沒風味

High-Tech Practices makes U.S. Pork Flavorless



無論豬隻以牧草地放養或在室內豬舍養殖,美國養豬業整體生產以系統化作業為主,然而業者會針對豬隻 不同性別、生長階段的營養需求,調配不同的飼料配方,最高可細分成9個階段,讓豬隻生長更健康,肉質 優良也深具風味。

Regardless whether the pigs are raised outdoors in the pastures or indoors in the pigsty, the U.S. pork industry raises them systematically. Producers create different feed formulae based on the nutritional needs of the pigs of different gender and growth stages (up to 9 stages), so the pigs can be more healthy, and yield meat with excellent quality and flavor.



#### 美國豬品質參差不齊



美國豬肉設有專業的屠體評級,屠宰廠採用聯網衡量標準,豬肉的產量與品質等級,同時可準確監測肉色 、酸鹼值、精肉和肥肉含量等數據,豬肉品質和供應量等相關資訊公開透明有保障。

U.S. Pork adopts a professional carcass grading system. Slaughterhouses have a common evaluation standard for pork yield and quality while also accurately monitoring data such as color, acidity, lean meat and fat content. Information regarding the quality and supply of pork is open and transparent.





美國豬肉採用全程冷鏈物流,以冷藏或冷凍運送豬肉,過程安全又衛生,更不影響肉質風味,品質穩定 有保障。

U.S. pork adopts end-to-end cold chain logistics to transport refrigerated or frozen pork. The transportation process is safe and sanitary without affecting meat flavor, guaranteeing consistent flavor.



#### 4. 美國豬騷味重、難料理



成熟公豬睪丸生產的雄烯酮與腸道中酪胺酸分解產生的氣味物質混合,就產生俗稱的豬騷味,無論台灣豬 、美國豬都可透過閹割,以避免特殊氣味。(美國FDA已批准農民可採人道去勢,以注射蛋白質化合物取代 手術,減少公豬氣味)

That smell, or boar taint, results from a mixture of the androstenone, produced in the mature hog's testicle, and the metabolites of tyrosine in the intestines. Whether it's Taiwan pork or U.S. pork, castration is an effective method in controlling the unique odor. (The U.S. FDA now allows farmers to spay pigs humanely by injecting a protein compound instead of using surgical methods to reduce boar taint)

#### 美豬瘦肉比例高皆因餵養瘦肉精



為了迎合市場喜好,生產者透過技術飼養出較以往更精瘦的豬隻,然而瘦肉比例提升,絕大原因須歸功進 步的飼養技術與品種改良,美國近年較受歡迎的豬種為:約克夏豬、杜洛克豬、漢普夏豬、蘭瑞斯豬、 巴克夏豬、斯堡慈豬、波中豬、波蘭豬。

To better meet market tastes, producers now employ techniques to raise pigs that are leaner than before. However, the rise in leanness is mostly due to technical improvements in raising pigs and breeding. In recent years, the more popular pig breeds in the U.S. are: Yorkshire, Duroc, Hampshire, Landrace, Berkshire, Spotted, Chester White, and Poland China.







BERKSHIRE

HAMPSHIRE

LANDRACE



→ 萊克多巴胺已被160多個國家禁用?



Is it true that ractopamine is banned in more than 160 countries?

萊克多巴胺製造商僅在少數國家提出申請使用,並非核淮少而是申請國家數少,因此造成民眾誤解。

Ractopamine manufacturers have only applied for a license in a few countries. It's not that countries do not approve its use; that is a misconception. It's that only a few countries have received applications for use.

食用含有萊克多巴胺的豬肉,會產生嚴重副作用?



Can eating pork containing ractopamine lead to severe side effects?

以安全容許量計算,體重60公斤的成人為例,每人每日可安全食用的豬肉量高達6公斤,安全範圍內食用終生也是安全的。

Using a 60 kg adult as an example, the acceptable daily intake of pork is as high as 6 kg. Eating pork is safe within this limit even if you eat it everyday for the rest of your life.

**一** 進補食用大量美國豬內臟會危害健康?



Would eating a large amount of U.S. pork offal damage my health?

衛福部公布萊克多巴胺殘留容許量規範,相較日本、韓國及國際標準還嚴格,況且進補極少使用冷凍內臟,國人無需擔心。

The Ministry of Health and Welfare has announced regulations for the acceptable residual level of ractopamine and it is stricter than the standards set by Japan, Korea, and the rest of the world. Moreover, Taiwanese people rarely eat frozen offal, so there is no need to worry.

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#### ─ We Care!美國豬寶寶快樂長大頭好壯壯 ─

We Care! U.S. Pig Babies Happily Growing Up Big and Strong

也許你會問,美豬的飼料是什麼?不是廚餘,答案是:玉米、大麥、高梁、蒸麥、以及小麥 ,這些穀物是提供豬隻飼料中「碳水化合物與脂肪」的主要來源;此外,漁籽粕也是美豬飼 料中「蛋白質」的來源之一,有助強鍵豬隻的肌肉,兼顯保護豬隻的器官;維他命與礦物質 如們與碩,更扮演均衡飲食營養素的要角。

You may want to ask, what do American pigs eat? Not food waste. The answer: corn, barley, sorghum, oat, and wheat. These grains are the main source of carbohydrates and fat in the pig's feed. Meanwhile, oilseed meal is a main source of protein in feed that can strengthen the muscles and protect the organs. Vitamins and minerals, such as calcium and phosphorous also play an important part of this balanced diet.



## 生產安全的食物 對社區環境負責

Producing Safe Food Fulfilling Responsibility to Community and Environment

美國小豬在飼育員細心照料下,擁有營養均衡的食物、乾淨的居住環境,許多業者在農場建 築上運用生態工法,將汙染降到最低,在農場管理過程中,環境永續與人道飼養,是美豬產 業對社會的承諾。

為了對下一代負起維護自然環境資源的責任。美國豬肉生產業者針對碳足篩、水足篩、土地 足篩與能源使用4大面向,深入研究與落實,最新報告指出,過去55年來,每胎仔豬產出時, 碳足篩減少7.7%、產業用水減少25.1%,能源使用減少7%,土地使用更減少了75.9%,每 一隻美豬青後,不僅蕴含了動物福祉的初心,也有對土地的美好初心。

Under the meticulous care of the caregiver, U.S. piglets have a balanced diet and a clean living environment. Many farmers adopt green building practices in the design of their farm to minimize pollution. The focus on sustainable environment and humane rearing in farm management is the U.S. pork industry's promise to the society.

To take on the responsibility of maintaining the natural environment and resources, U.S. pork producers have researched and practiced reducing carbon footprint, water footprint, land footprint, and energy use. The latest report show that over the past 55 years, the production of every litter of pigs show a 7.7% reduction in carbon footprint, 25.1% less water use, 7% reduction in energy use, and a whopping 75.9% reduction in land use. In every American pig, there's love for animal-well being, and care for the beauty of the land.



## 美國肉類出口協會 駐華辦事處 U.S. Meat Export Federation

美國肉類出口協會是一非營利的國際畜肉推廣協會,成立的宗旨是為美國之牛肉、豬肉、 羊肉和犢牛肉創造新的貿易機會並發展既有的國際市場。

The U.S. Meat Export Federation (USMEF) is a nonprofit trade association working to creat new opportunities and develop existing international markets for U.S. beet, pork, lamb, and yeal.

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