



**Anti-Infringement Bureau for Intellectual
Property Rights on Plant Material
打击植物材料侵权局**

**IP KEY China
2 December 2020
IP KEY 中国
2020年12月2日**

WHAT IS AIB ? AIB是什么?



- AIB = Anti-Infringement Bureau for Intellectual Property Rights on Plant Material AIB = 打击植物材料侵权局
- Non-profit association 非营利协会组织
- Established 1 April 2010 成立于2010年4月1日
- Membership is open to other integrated vegetable seed companies. 向其他一体化种子公司开放成员申请



THE GLOBAL PICTURE OF PIRACY 全球侵权情况概览



- **Piracy is significant:** 2017 - US\$600 billion (OECD)
- **Growing very fast :** 5% of EU imports are counterfeits (Europol)
2,5% of world trade are counterfeits
 - OECD 2008: \$250 billion ; 2013: \$461 billion (+80%)
- **Forced labour :** 25 million people (ILO)
- **In all sectors :**

| | |
|--------------------|--|
| Software industry | \$ 45 billion (total digital \$ 200 billion) |
| Auto industry | \$ 12 billion |
| Apparel & footwear | \$ 12 billion |
| Food | \$ 30 – 40 billion |
| Cigarettes | \$ 35 billion (BAT) |
| Pharmaceuticals | 10 % of sales (WHO) |
| Stolen oil | \$ 133 billion |

侵权规模: 2017年 — 6000亿美元 (经合组织)

快速增长: 欧盟进口额的5%为假冒品 (欧洲刑警组织)

世界贸易额的2.5%为假冒品

经合组织2008年数据: 2500亿美元; 2013年数据: 4610亿美元 (+80%)

强迫劳动: 2500万人 (国际劳工组织)

所有行业: 软件 – 450亿美元 (数据产业侵权总值为2000亿美元)

汽车 – 120亿美元

服装鞋履 – 120亿美元

食品 – 300–400 亿美元

烟草 – 350亿美元 (英美烟草)

药品 – 销售量10% (世卫组织)

偷油 – 1330亿美元

Why are seeds so important? Why must they be protected? 种子为何如此重要？为何必须保护种子？



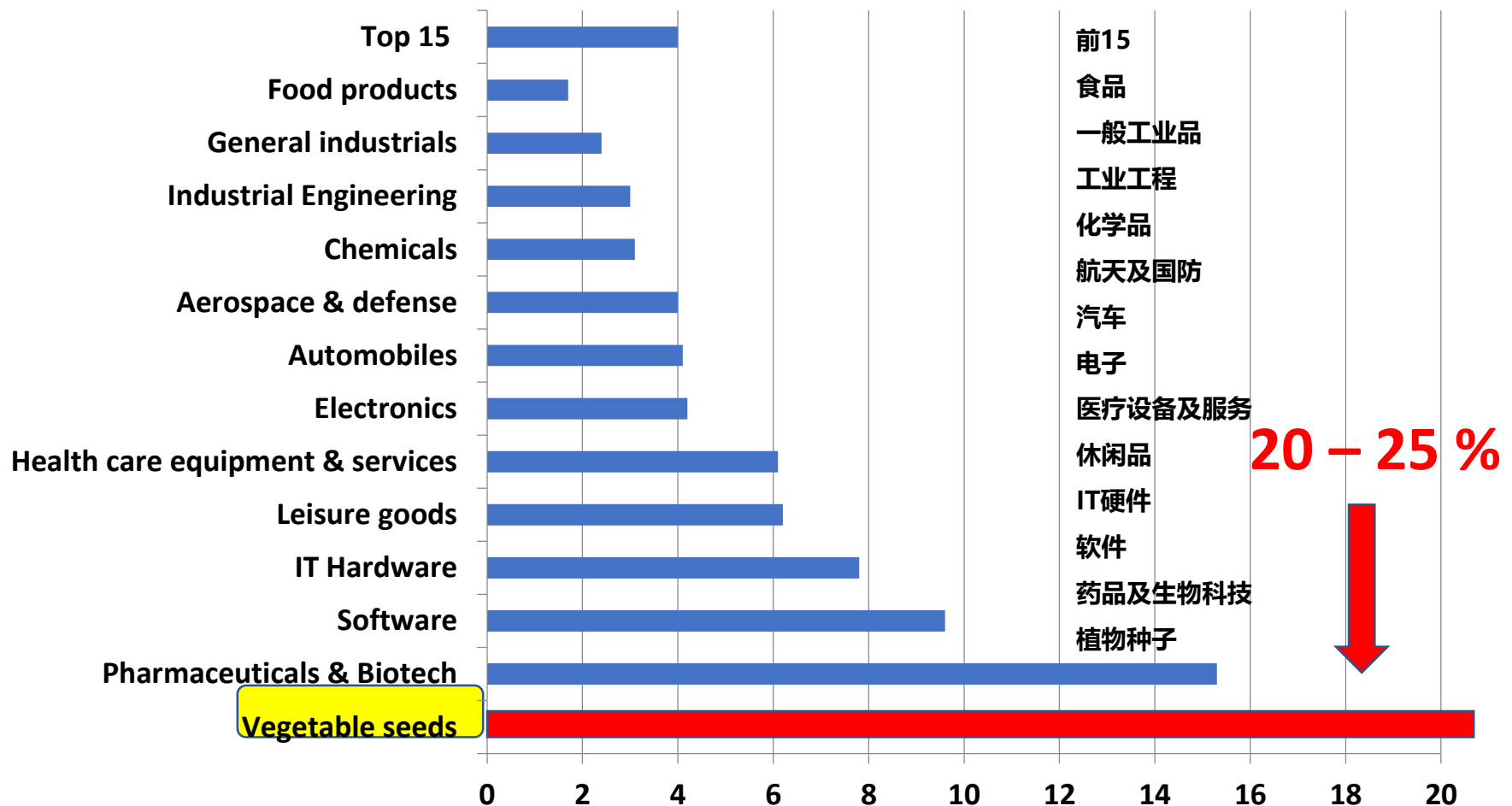
- By 2050 the world's population is projected to be over 10 Billion
- 预计到2050年世界人口将超过100亿
- The Food and Agriculture Organization (FAO) predicts that the world food production will need to rise by 70-80% to satisfy global demand.
- 粮农组织预测世界食物产量需提升70-80%，才能满足全球需求
- As Global Warming reactions continue to increase growing seasons, climates and locations are changing at an unforeseen pace
- 全球变暖导致作物生长期持续延长，气候和种植地变化速度前所未有
- In order to plan for the future of crops and new varieties seed companies must plan ahead and project new lines and new varieties that can match the changing world
- 为了对作物和新品种做好规划，种子公司必须未雨绸缪，推出能够适应变化环境的新品系和新品种
- It takes anywhere from 7 years to 20 years to plan and develop a new variety
- 规划、开发新品种一般需要7到20年

ITS VERY HIGH RESEARCH INTENSITY MAKES THE VEGETABLE SEED INDUSTRY VULNERABLE FOR PIRACY

极高的研发强度使得植物种子行业易遭侵权



R&D Intensity (R&D investments/Net Sales)
研发强度 (研发投资/净销售额)



THE VEGETABLE SEEDS SECTOR IS ATTRACTIVE TO PIRATES

植物种子行业吸引侵权者



THE VEGETABLE SEED BUSINESS CHAIN 植物种子产业链



- high gross margins
- 毛利率高
- Technology makes copying easier (and also the identification of varieties)
- 技术手段降低了抄袭难度（也降低了识别品种的难度）
- copying is cheap, requiring little capital investment
- 抄袭成本低，几乎无需资本投入
- no distinction between legally and illegally produced harvested product
- 合法与非法生产的收获产品之间无区别
- illegality does not bother consumer
- 非法性并不影响消费者
- often no perceived health hazards (like pharma, pesticides or car parts)
- 往往并无可感知的健康危害（不同于药品、杀虫剂或汽车零配件）
- vegetable seeds are often small volume: easy to transport
- 植物种子往往体积小：易于运输
- effective enforcement of IPR on genetics is full with hurdles
- 遗传材料知识产权的有效执法困难重重

PLANT VARIETY PROTECTION IS OUR SECTOR'S MAIN INSTRUMENT TO PROTECT ITS IP

植物品种保护是本行业保护其知识产权的主要手段



THE INSTRUMENTS TO PROTECT 保护手段

VARIETIES -
品种

PLANT VARIETY RIGHTS (PVR) OR CALLED BREEDERS RIGHTS
植物品种权或育种者权利

TRADE NAME -
商品名

TRADEMARK
商标



often used for flowers
经常用于花卉

LOGO -
徽标

TRADEMARK
商标



PICTURE /
BROCHURE /

COPYRIGHT

WEBSITE

图片/手册/网站

版权



INVENTIONS -
(traits/breeding
processes, etc)

PATENT

发明 (性状/育种
过程等)

专利

WHAT ARE THE MAIN ISSUES IN THE VEGETABLE SECTOR* ?

植物行业的主要问题是什么*?



1) VEGETATIVE REPRODUCTION OF GRAFTED PVR CROPS

嫁接PVR作物的营养繁殖

- TOMATO, WATERMELON, MELON, EGGPLANT
- 番茄、西瓜、甜瓜、茄子
- SUBSTANTIAL VEGETATIVE PROPAGATION IN TOMATO IN MEDITERRANEAN BASIN (20 % IN SPAIN AND ITALY; IN CHERRY TOMATOES IN ITALIAN REGIONS UP TO 40%. LOSSES ARE ALSO HIGH DUE TO GROWING STUBS.
- 地中海盆地番茄大量营养繁殖（西班牙和意大利为20%；意大利地区的圣女果高达40%）。残株造成的损失也很高。

2) REPRODUCTION OF SEEDS OF OPEN-POLLINATED PVR CROPS (LETTUCE, BEANS)

自由授粉PVR作物（生菜、豆子）的制种

- PRODUCED OUTSIDE OF NATIONAL REGULATED SYSTEMS
- 在国家监管体系之外生产
- VARIETIES ARE OFTEN MIS-LABELLED (FRAUDE)
- 品种经常标识错误（涉嫌欺诈）
- PRODUCERS ARE OFTEN NOT CERTIFIED
- 生产者往往未经认证
- PRODUCTION OUTSIDE OF QUALITY CHECKS BY AUTHORITIES
- 生产活动游离于监管质量检查之外
- SIGNIFICANT ILLEGAL NETWORK
- 非法网络大量存在

WHAT ARE THE MAIN ISSUES IN THE VEGETABLE SECTOR* ? (2)

植物行业的主要问题是什么*? (2)



3) F2 PRODUCTION OF PVR ONION HYBRIDS

PVR洋葱杂交品的F2代生产

- EASTERN EUROPE, TURKEY, FORMER RUSSIAN STATES, SPAIN
- 东欧、土耳其、前苏联地区、西班牙
- physical detection is often very difficult (hardly any differentiation)
- 物理检测常常极为困难 (几乎无差异)

4) THEFT OF PARENT LINES : UNAUTHORISED SALE OF F1 HYBRIDS

窃取亲本品系：未经授权销售F1代种子

- TOMATO, SQUASH, EGGPLANT, BRASSICA, ETC. 番茄、南瓜、茄子、芸薹属等
- MANY COUNTRIES, SEVERAL CONTINENTS 许多国家, 多个大洲
- CAUSE: THEFT / UNAUTHORISED USE OF PROPRIETARY PARENT LINES (IN LEGAL TERMS: TRADE SECRET THEFT)
- 原因: **窃取/未经授权使用专有亲本品系 (法律术语: 窃取商业机密)**
- LEADING TO SUBSTANTIAL (FINANCIAL) IMPACT ON RIGHT HOLDER
- 对权利人造成重大 (财务) 影响
- MARKET DISRUPTION REPORTED IN SOME CASES
- 部分案例导致市场扰乱

5) SALE OF COUNTERFEIT SEED PACKAGES (TRADE MARK INFRINGEMENT)

销售假冒种子包装 (商标侵权)

- EASTERN EUROPE, MIDDLE EAST, ASIA, AFRICA 东欧、中东、亚洲、非洲
- FOUND IN MANY CROPS 出现在许多作物中

VEGETATIVE RE-PRODUCTION OF PVR TOMATO : HOW DOES IT WORK? PVR番茄的营养繁殖：运作方式为何？



TOMATO PRODUCTION IN SOUTHERN EUROPE 南欧番茄生产

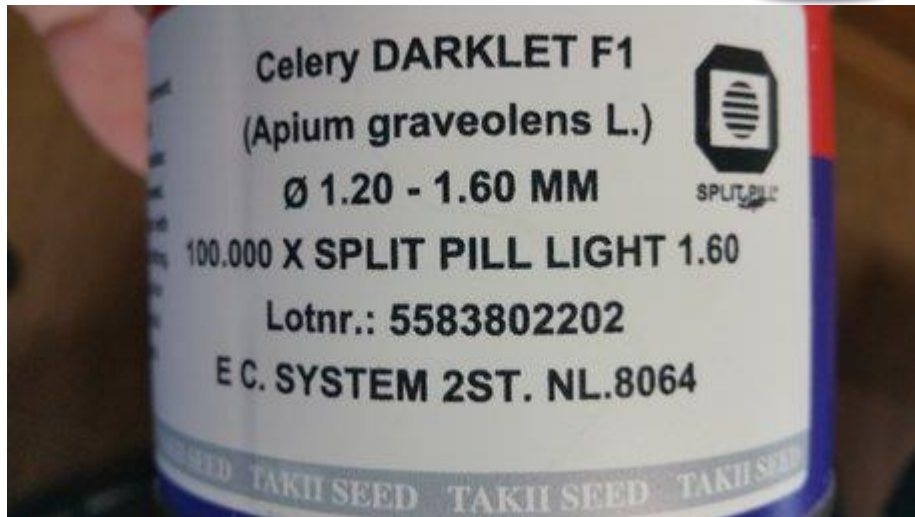
- MOSTLY GROWN WITH TWO STEMS PER PLANT
多数番茄株带两个茎
- SEASON : SOWN AND TRANSPLANTED IN SEPTEMBER, AND GROWN UNTIL MAY
种植季：每年九月播种、嫁接，生长到次年五月



AN EXAMPLE OF FAKE PACKAGE FOUND IN ITALY 在意大利发现的假冒包装示例



- LABEL WELL MADE
- 标签制作以假乱真
- TAKII DOES NOT HAVE 100,000 PILLS PACKAGES.....
- 但TAKII没有10万颗种子的包装.....



EXAMPLE OF FALSE NAMING : TROCADERO (1977)

假冒名称示例: TROCADERO (1977年)



- **ESTRATTO CATALOGO NAZIONALE. 国家品种目录.**

Dettaglio varietà 品种说明

Specie botanica 植物学物种: O027 LATTUGA 莴苣 (Lactuca sativa L.)

Codice sian 品种编码: 471

Denominazione 品种名: **Trocadero la preferita**

Sinonimi 近义名: **Trocadero a seme nero**

SOGGETTI 相关方

Responsabile 企业名称: 149-MAGNANI SEMENTI S.P.A., 125-S.A.I.S. SOCIETA' AGRICOLA ITALIANA SEMENTI

-DM di Iscrizione del 20/06/1977 (N.)-G.U.N. del

-DM di Rinnovo del 02/06/1988 (N.)-G.U.N. del

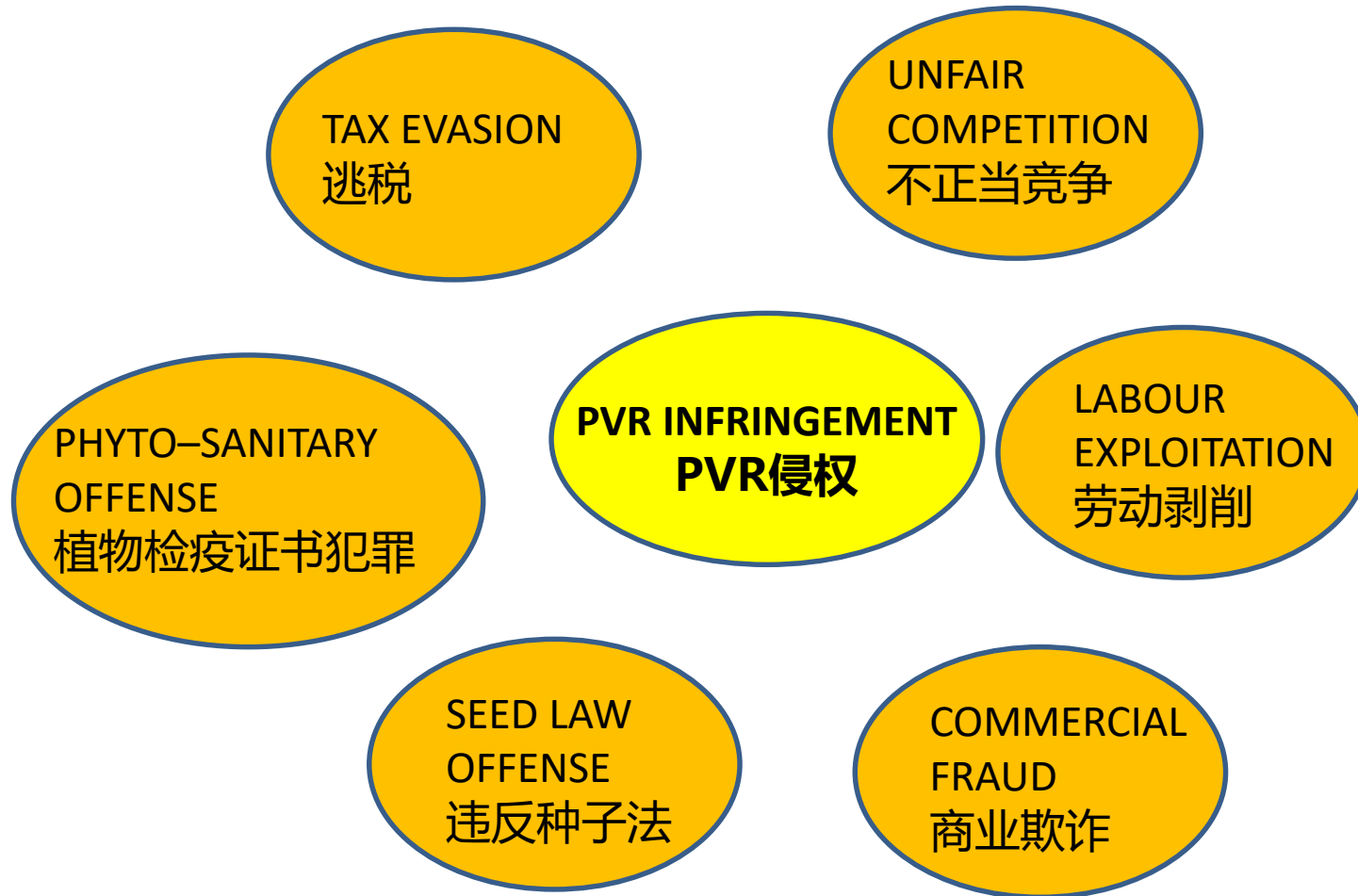
-DM di Variazione Responsabile del 16/02/2000 (N.)-G.U.N. 46 del 25/02/2000

-DM di Rinnovo del 16/02/2000 (N.)-G.U.N. 46 del 25/02/2000

-DM di Rinnovo del 10/03/2010 (N. 4629)-G.U.N. 77 del 02/04/2010

**PVP INFRINGEMENT IS OFTEN LINKED TO A CLUSTER OF OTHER
ILLEGALITY / OFFENSES**

PVP侵权经常与一系列其他违法犯罪活动相关联



THE ILLEGAL VEGETATIVE REPRODUCTION OF TOMATOES CAUSED A MASSIVE OUTBREAK OF PEPINO VIRUS IN SICILY (ITALY)

番茄非法营养繁殖导致意大利西西里岛爆发大规模凤果病毒



I quarter 2008 第1季度



II quarter 2008 第2季度



III quarter 2008 第3季度



I quarter 2009 第1季度



II quarter 2009 第2季度



III quarter 2009 第3季度



I quarter 2010 第1季度



II quarter 2010 第2季度



III quarter 2010 第3季度



惨绝人寰：警方在西西里岛发现劳动力虐待及剥削

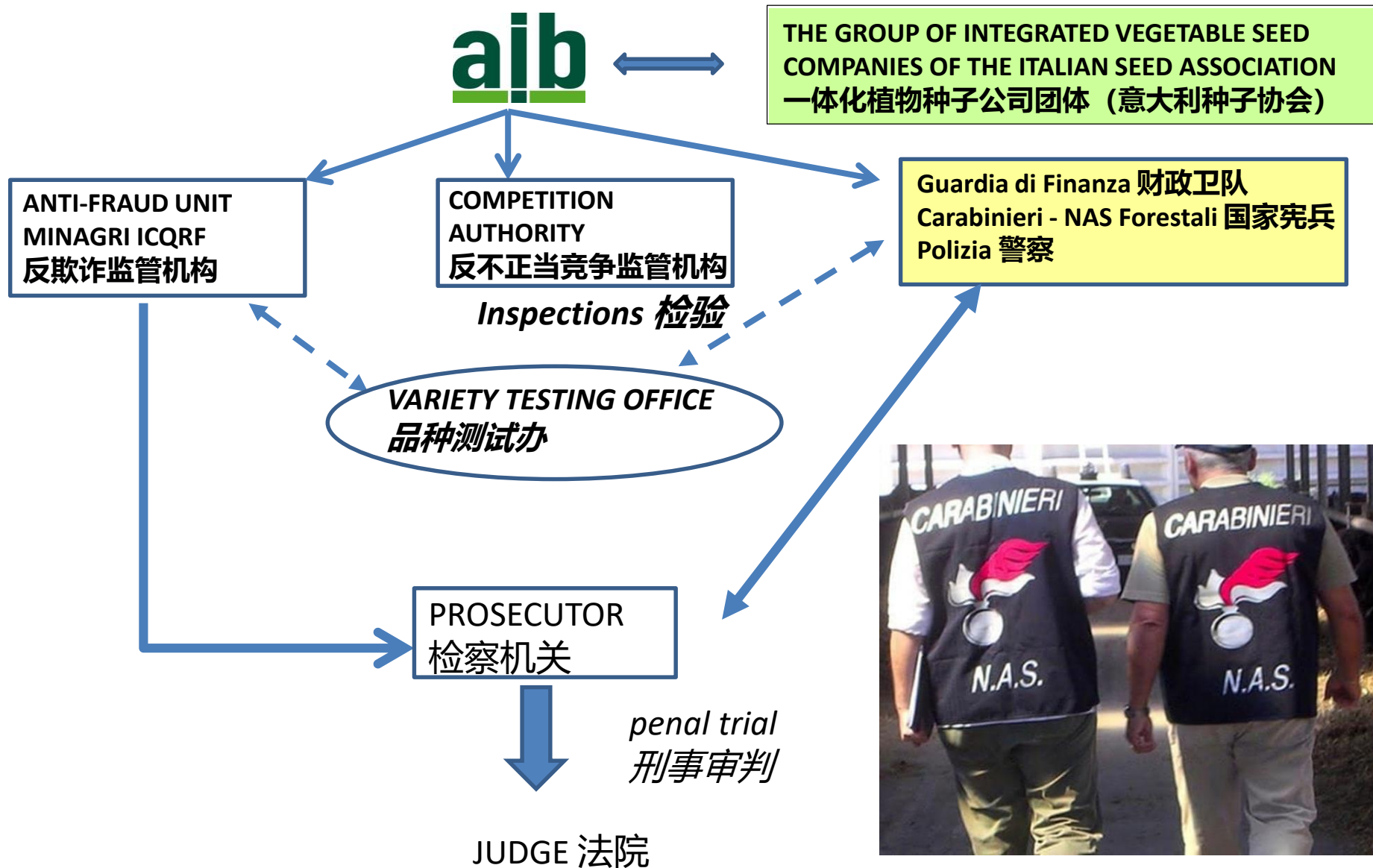
"Terrible conditions': police uncover abuse and exploitation on farms in Sicily

Action follows Observer investigation into claims of forced labour and sexual exploitation among Romanian migrant women employed as agricultural workers

Trafficking and exploitation in focus is supported by

AIB FOLLOWS A MULTI-POLICE APPROACH IN ITALY

AIB在意大利采取多部门联动模式



BUILDING LINKS WITH THE RURAL POLICE IN SPAIN HAS BEEN SUCCESSFUL 与西班牙自然保护局成功建立联系



THE GROUP OF INTEGRATED VEGETABLE SEED COMPANIES OF THE SPANISH SEED ASSOCIATION
一体化植物种子公司团体 (意大利种子协会)

INSPECTION AGENCY OF SPANISH SEED ASSOCIATION (GESLIVE)
西班牙种子协会检验机构

Denouncements 通报

RURAL POLICE (SEPRONA)
自然保护局

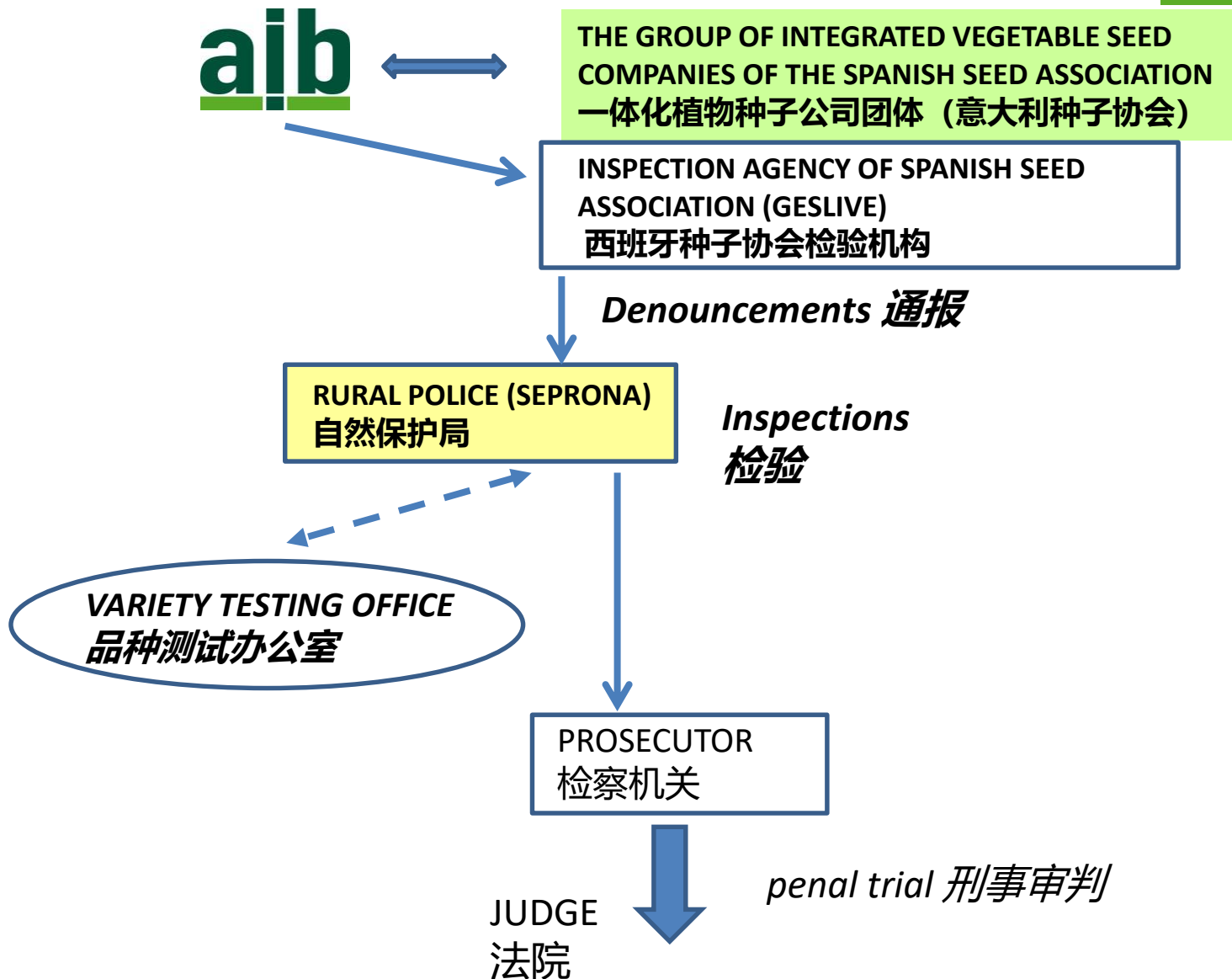
Inspections 检验

VARIETY TESTING OFFICE
品种测试办公室

PROSECUTOR
检察机关

JUDGE
法院

penal trial 刑事审判



AUDIT SCHEME WITH PELLETING CO'S FOR LEAFY SALADS BECAME OPERATIONAL ON 1 SEP 2011

与PELLETING公司就生食叶菜制定审核计划，2011年9月1日起实施



AGREEMENT
协议

PELLETING CO

1. **KEEPS RECORDS OF 记录下述信息:**
 - BATCHES RECEIVED (WITH VARIETY NAMES) **接收批量 (含品种名)**
 - QUANTITY, TREATMENT, LOT NO, ETC. **数量、处理、批号等**
 - SAMPLE TO BE KEPT FOR 2 YEARS **样品保存2年**
2. **UNIDENTIFIED SEEDS WILL BE REFUSED 拒收不明种子**
3. **ALLOWS AIB 允许AIB进行:**
 - AUDIT 2 X PER YEAR **每年2次审核**
 - SAMPLES TRANSFERRED TO AIB ON REQUEST **按需转移样本至AIB**
4. **AIB VERIFIES SEED SAMPLES TAKEN WITH THE 200 SNP PROFILES IN ITS CODED DATABANK**
AIB使用编码数据库中的200套SNP图谱，验证收受种子样品

CLOSE COOPERATION BETWEEN PRIVATE SECTOR AND PUBLIC SECTOR HAS BEEN KEY FOR OUR SUCCESS

政府与社会紧密合作是成功关键



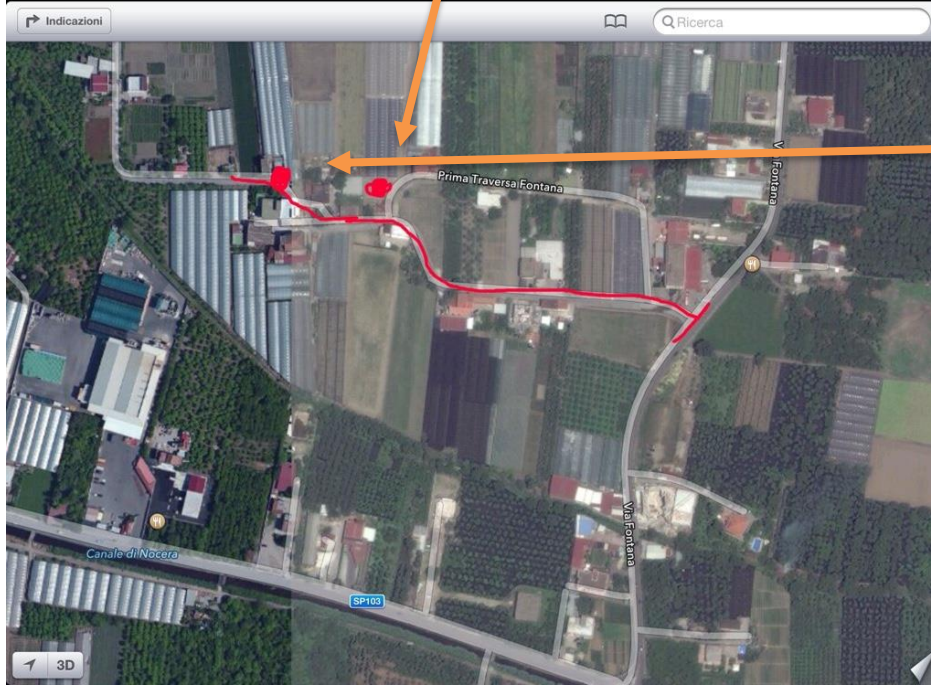
THE STEPS WE NORMALLY FOLLOW 我们通常采取的步骤:

1. **Intelligence reports on illegal reproduction received by AIB AIB收到非法品种繁殖相关情报**
 - Growers using a PVR variety are unknown to seed company 种子公司不知晓使用PVR品种的种植者
 - Persistent rumors in the market 市场谣言持续不断
 - Complaints from other growers on unfair competition 其他种植者投诉不正当竞争
 - Observations from seed company sales representatives / technicians: “this grower uses our genetics, but we have not sold to him” 种子公司销售代表/技术人员评述：“该种植者使用我公司种子基因材料，但我公司并未向其进行销售。”
2. **Verification of the intelligence by AIB AIB验证情报**
3. **If intelligence found credible, denouncement is made to authorities: 如果情报可信，向有关部门通报**
 - Name of suspect 嫌疑人名称
 - Address and GPS coordinates of greenhouse/plot 温室/地块位置、GPS坐标
 - Supporting evidence like pictures, labels, etc. 图片、标签等支持证据
4. **Authorities to inspect the growers /plant raisers 有关部门对种植者/栽培者实施检查**

THE MORE EVIDENCE WE OBTAIN THE BETTER! 证据越充分越好!



| STICOLO | DESCRIZIONE | FOGLI | CONT. | N.M. | QUANTITÀ | PREZZO UNITARIO | VALORE | ... |
|-----------|--|-------|-------|------|----------|-----------------|--------|-------------|
| JKKAISEF | P.POMODORO CREATIVO INN KAISER LYCOPERSICON LYCOPERSICUM Lotti: E11268; P.Inn.: 101048885; Partita: I3603080/2014; P.Inn.: I502407685/2014; | 84 | 30 | NR | 2520,00 | 0,83000 | 5,00 | 1.987,02 10 |
| IINNKAISE | P.POMODORO SV1201 TC INN KAISER LYCOPERSICON LYCOPERSICUM Lotti: 0141268328; P.Inn.: 101048885; Partita: I120808/2014; P.Inn.: I502407685/2014; | 84 | 10 | NR | 840,00 | 0,83000 | 5,00 | 852,34 10 |
| NTOPGL | P.POMODORO CREATIVO INN TOP GUN LYCOPERSICON LYCOPERSICUM Lotti: E11268; P.Inn.: RT0039MASS; Partita: I6002807/2014; P.Inn.: I1002607ASS/201 | 84 | 60 | NR | 5040,00 | 0,83000 | | 4.183,20 10 |



250.024 OXPYIL® 250 TEM
LETTUCE L/02
SEED REF.: L/02
L-14861/B-14861-1-00-00-01
PROD. DATE: JULY 2013
TOTAL WEIGHT: 5,248 KGS
W.TH.P.: 20,990 GR.

OTHER TYPES OF AIB ACTIONS AIB开展的其他行动



- **LOBBYING 政策疏通**
 - **ESA 欧洲种子协会**
 - **European Union Intellectual Property Office (EUIPO) 欧盟知识产权局**
 - **Workshop Public Prosecutors 检察机关研讨会**
 - **Asian & Pacific Seed Association (APSA) 亚太种子协会**
 - **Working Group Integrated Veg. Seed Companies (WIC) – in place**
 - **一体化植物种子工作小组 — 已成立**
 - **Creation of AIB Asia 成立AIB亚洲分会**
 - **Governments & UPOV – to push for PVP enforcement (legal) structure**
 - **政府与国际植物新品种保护联盟：推动PVP执法（司法）架构**
 - **Interpol and Europol : make them aware of our issues**
 - **国际刑警组织与欧洲刑警组织：提高对相关问题的意识**
- **LEGAL CASES ON BEHALF OF INDUSTRY 代表行业法律案例**
 - **Studies by Universities Wageningen/Bologna/Madrid for view on stubs (is it propagation yes/no?), as preparation for legal case**
 - **瓦格宁根/博洛尼亚/马德里大学针对残株（是否为繁殖材料）的研究，为司法案例援引做准备工作**
 - **Protocol to determine if plant originates from vegetative re-production for courts to be used in legal cases (besides serving as manual for enforcement agents).**
 - **植物营养繁殖确认规程，供法院判案使用（同时供执法人员参考）**

OTHER TYPES OF AIB ACTIONS AIB开展的其他行动

EDUCATION 教育

- In-company presentations and workshops for AIB members
- 向AIB成员公司开展内部讲座、研讨会
- E-learning module with Interpol
- 与国际刑警组织联合开展线上学习

AIB AND INTERPOL THE E-LEARNING MODULE “IPR IN THE VEGETABLE SEED SECTOR MADE TO MOBILISE FIELD STAFF* - >1000 LEARNERS SO FAR!

AIB和国际刑警组织的线上学习课程：“植物种子行业的知识产权保护 – 如何调动部署现场工作人员”（目前已招收超过1000名学员）



- In English / French / Italian / Spanish / Turkish language versions
- 英语/法语/意大利语/西班牙语/土耳其语版本

Thank you !
谢谢!



Anti-Infringement Bureau for Intellectual Property Rights on Plant Material
打击植物材料侵权局

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