



CHINA

**Technical and legal aspects of Essentially Derived Varieties (EDV) and the possible impact on breeding and agriculture**  
**实质性派生品种 (EDV) 的技术和法律问题  
及其对育种和农业的潜在影响**

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## Outline /// 大纲

- **Introduction to Essentially Derived Varieties /// 实质性派生品种介绍**
  - Definition of EDVs /// EDV的定义
  - Scope of protection of EDVs /// EDV的保护范围
  - Register of EDVs in the Register of CPVRs /// 欧盟植物品种权登记系统中的EDV登记
- **Relevant case-law /// 相关判例**
- **Example of ISF guidelines to handle conflicts /// ISF指南示例：冲突处理**



# Introduction to Essentially Derived Varieties

## 实质性派生品种介绍

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## UPOV and Basic Regulation /// UPOV与基本法规

International Convention for  
the Protection of New  
Varieties of Plants (UPOV)

国际植物新品种保护公约  
(UPOV)

Regulation (EC) No 2100/94  
Basic Regulation (BR)

第2100/94号欧共体理事会条  
例 (基本条例, BR)

Articles 14(5) and 15(1)(iii)  
第14条第5款、第15条第1款  
第iii点

Article 13(5) and 13(6)  
第13条第5款、第13条第6款



## Legal context of EDVs /// EDV的法律背景

Introduced in the in the 1991 Act of the UPOV Convention /// 在UPOV公约（1991年文本）中引入EDV概念

No clear definition of EDV /// 没有明确的EDV定义

Its aim is to strengthen the rights of breeders /// 目的是加强育种者权利



## Legal context of EDVs /// EDV的法律背景

The scope of protection of PVRs also apply in relation to /// 植物品种权的保护范围也适用于

*varieties which are essentially derived from the variety in respect of which the CPVR has been granted, where this variety is not itself an EDV* /// 受保护品种的实质性派生品种，而受保护品种本身不是实质性派生品种

[Art 13(5) BR; cfr. Art. 14(5)(i) UPOV 91]



## Legal context of EDVs - UPOV /// EDVs的法律背景：UPOV

Essentially derived varieties may be obtained for example by /// 实质性派生品种可以通过：  
the selection of a natural or induced mutant, or of a somaclonal variant, the selection of a variant individual from plants of the initial variety, backcrossing, or transformation by genetic engineering.  
/// 选择天然或诱变株、或体细胞无性变异株，从原始品种中选择变异、回交或经遗传工程转化等获得。

→ Non exhaustive list /// 非穷尽列举

[Art. 14(5)(c) UPOV 1991]



## Legal context of EDVs - EU /// EDV的法律背景：欧盟

3 cumulative requirements for a variety to be an EDV: /// 关于实质性派生品种的3条叠加要求：

- (a) it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety; /// 主要派生于原始品种，或派生于主要由原始品种派生的品种；
- (b) it is distinct in accordance with the provisions of Article 7 from the initial variety; and /// 相较于原始品种具有第7条所规定的特异性；
- (c) except for the differences which result from the act of derivation, it conforms essentially to the initial variety in the expression of the characteristics that results from the genotype or combination of genotypes of the initial variety genotype or combination of genotypes of the initial variety /// 除派生引起的性状有所差异外，在表达由原始品种基因型或基因型组合产生的基本性状方面与原始品种基本相同。

[Art 13(6) BR]





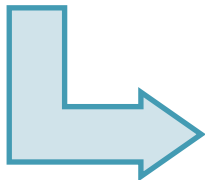
## EDV requirements /// EDV要求

- In other terms, the EDV is different from the one from which it derives but it keeps the main characteristics of the Initial Variety /// 换言之，EDV不同于原始品种，但保留了原始品种的主要性状
- It can be challenging to identify an EDV and its scope of protection /// 明确EDV及其保护范围可能较为困难

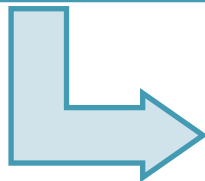


## Legal context of EDVs /// EDV的法律背景

The breeder of the EDV can commercialise it subject to authorization and conditions of the rightholder of the Initial Variety (IV). /// 经原始品种权利人授权，EDV育种者可以有条件地对EDV进行商业化。



Agreement needed before any exploitation. /// 商业化利用原始品种必须以达成协议为前提。



EDV compensate the rightholder of the IV.  
/// EDV育种者向原始品种权利人支付费用。

## Legal context of EDVs /// EDV的法律背景

The concept of EDV does not abolish the Breeder's Exemption. Free access to protected plant varieties for breeding purposes is maintained /// “育种者豁免”不因EDV而废止。利用受保护的品种培育新植物品种，不受任何限制。



## EDV requirements: Predominant derivation /// EDV要求：主要由原始品种派生

There must have been an act of derivation (examples provided in UPOV). /// 必须有派生行为（UPOV公约提供了示例）。

Principle of cascade of derivation: an EDV can only derive from one protected IV or from another/others EDV of the IV. /// “级联”派生原则：EDV只能派生自一个受保护的原始品种或其他由该原始品种派生的EDV。

In both cases, the EDV is subject to the authorisation of the title holder of the IV for exploitation purposes /// 两种情况下，对EDV的商业化利用都需要原始品种权人的授权。



## EDV requirements: Clear distinctness // EDV要求：明显特异性

The EDV shall be clearly distinct from the IV (Article 7 BR) and therefore a protectable variety // EDV应明显特异于原始品种（BR第7条），因此该EDV是可受保护的品种

The distinction must be able to be established on the basis of phenotypical characteristics // 特异性必须能够建立在表型性状的基础之上。

**D** **Distinctness**  
The variety must be clearly **distinguishable** from any other variety of common knowledge at the date of application.



## EDV requirements: Conformity /// EDV要求：一致性

- The EDV may only differ from the IV in differences resulting from the act of derivation /// EDV仅在派生引起的性状差异方面不同于原始品种。
- Relevance of expressed, genetically heritable characteristics. Significant extent of similarity /// 重点是可遗传性状表达。与原始品种具有显著相似性。

[Art. 7 BR and Art. 13(6)(c)BR]



## Is this an EDV? /// 这是EDV吗?

**Conventional  
Apple Variety**

常规苹果品种



**Arctic®  
Apple Variety**

Arctic® (北极) 苹果品种

## UPOV Explanatory Note on EDV Background /// UPOV关于EDV法律背景的解释性说明

- Revision process of the explanatory notes on EDV of 2017 (EXN/EDV 2017) (previous one of 2009) /// EDV解释性说明（2017年版）（EXN/EDV 2017）修订过程（之前为2009年版）
- UPOV Seminar on the impact of policy on EDVs on breeding strategy of October 2019 /// 2019年10月，UPOV关于EDV政策对育种策略影响的研讨会



- New version adopted during the Council of UPOV on 27 October 2023 /// 2023年10月27日，UPOV理事会通过新版解释性说明





## Scope of protection /// 保护范围

- Essentially derived varieties can be protected by PVRs in the same way as for any variety /// EDV可以与任何其他品种以同等方式受到品种权保护。
- The breeder of the EDV still has all the rights conferred by protection under the BR (see Article 13) /// EDV育种者仍将保有基本条例（BR）所赋予的所有受保护权利（见第13条）
- The breeder of the protected initial variety will also have rights in that variety irrespective of whether the essentially derived variety is protected or not /// 无论EDV是否受到保护，受保护原始品种的育种者仍将保有该品种相关权利

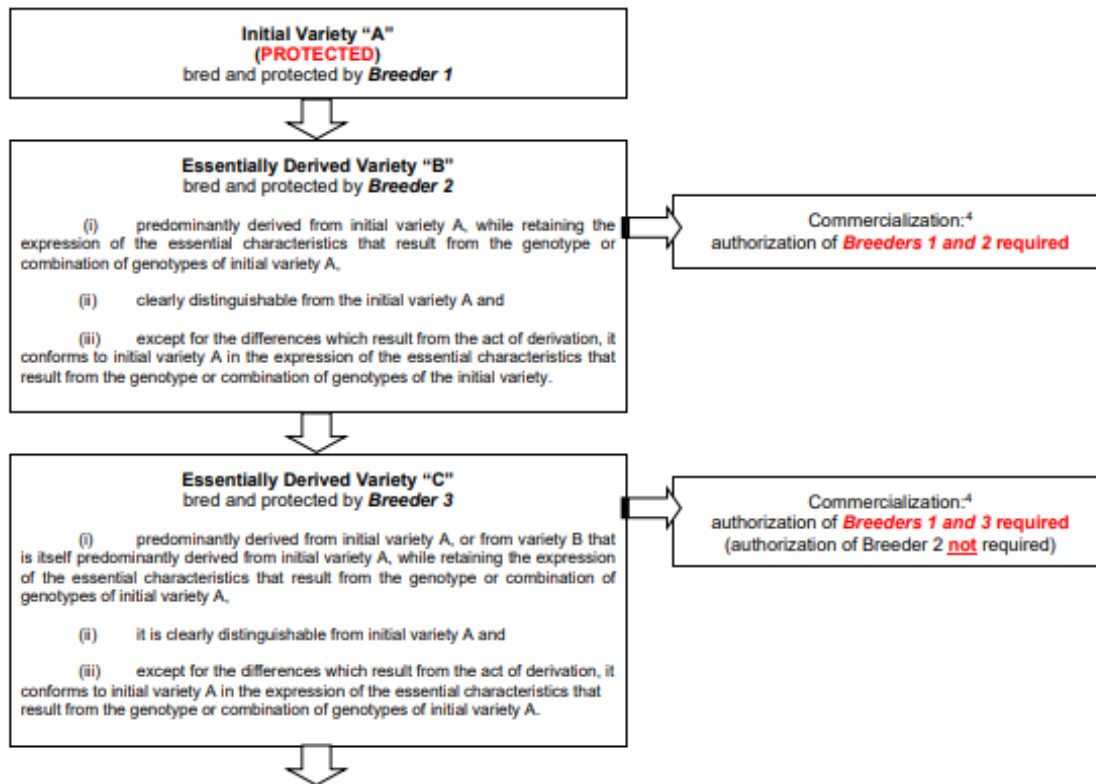
→ In other terms, the breeder of the EDV will enjoy the PVR protection but will have to respect the rights of the breeder of the IV. /// 换言之，EDV育种者将受到品种权保护，但是必须尊重原始品种育种者的权利。

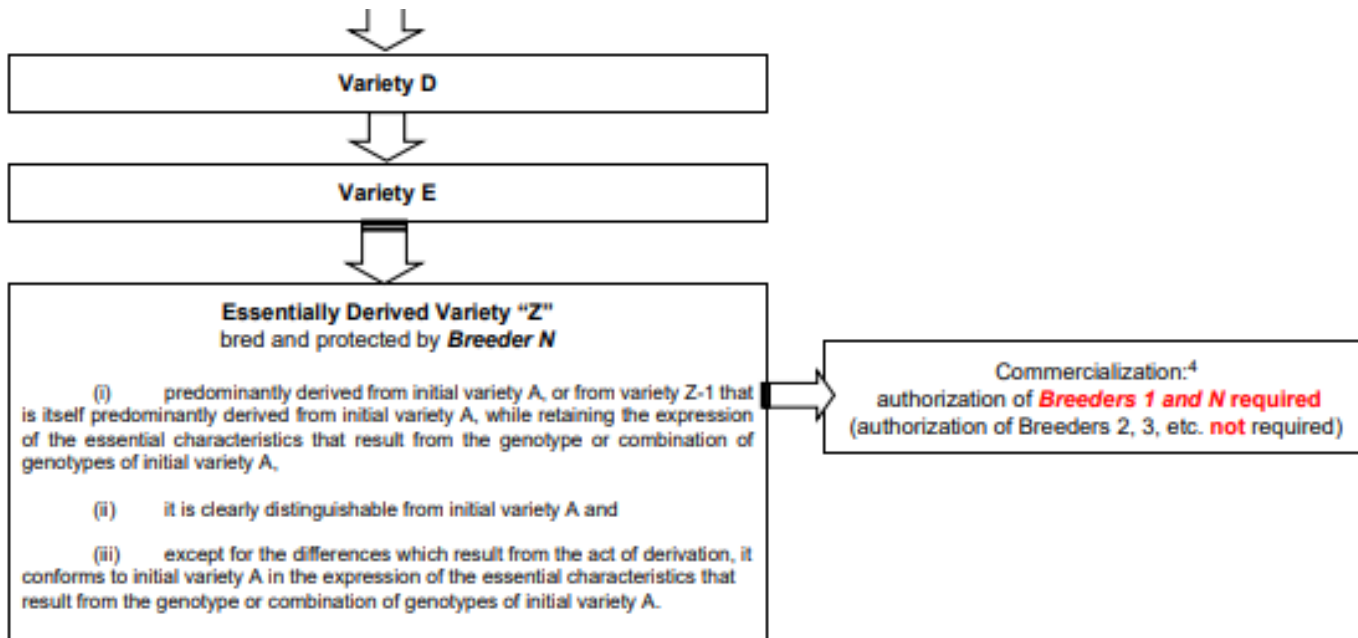


# Scope of protection -Scheme: Initial and Derived Varieties

## 保护范围—方案：原始品种和派生品种

Figure 3: Initial Variety protected and EDVs protected



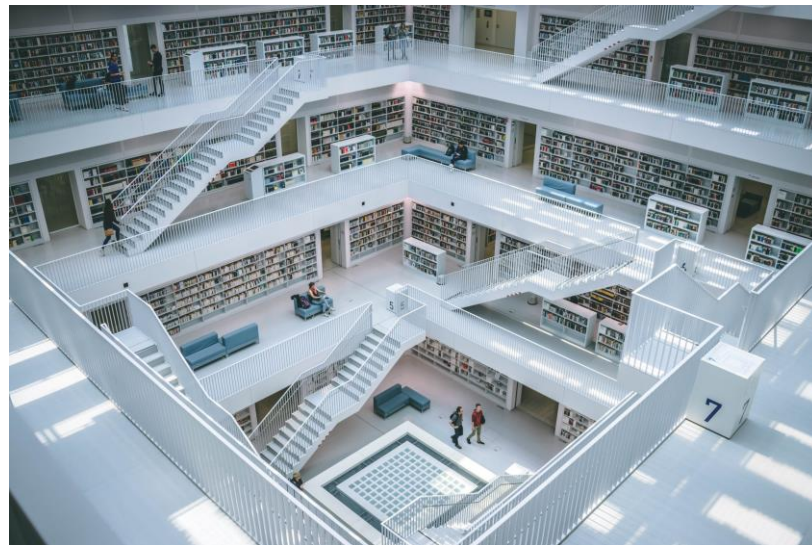


## Register of EDVs in the Register of CPVRs /// 欧盟植物品种权登记系统中的EDV登记

The Register of CPVRs shall contain the following particulars: /// 欧盟植物品种权登记系统中应包含以下详情：

- Identification of the varieties as initial and essentially derived /// 原始品种和实质性派生品种的识别信息
- variety denominations /// 品种命名
- names of the parties concerned /// 有关各方的名称

[Art. 87(2)(h) BR]



## Preliminary remarks /// 背景说明

- The CPVO does not conduct an examination concerning the information entered into the Register of CPVRs supporting the claim that a variety is an EDV from an already protected variety. /// 欧盟植物品种权登记系统内，就某一品种系受保护品种EDV的佐证信息，CPVO不对其是否属实进行审查。
- An EDV need not to be protected and may elude the attention of a granting authority. /// EDV可能未申请品种权保护，也未引起授权机构的注意。



## Conditions of registration /// 登记条件

- EDVs which are not protected or for which no application for registration is pending can be entered into the Register provided the initial variety is registered with the CPVO /// 原始品种已在CPVO登记的，其不受保护或没有注册申请待定的EDV可以进行登记。
- If the EDV is protected itself, the information that it is an EDV of a protected initial variety can also be entered in the Register of CPVRs /// EDV是受保护品种的，同样可以登记“该品种是受保护原始品种的EDV”这一信息。



## Information to be provided /// 需提供的信息

- Identification of the varieties as initial and essentially derived (act of derivation); /// 原始品种和实质性派生品种（派生行为）的识别信息；
- A proposal for a suitable denomination pursuant to Article 63 BR, and /// 根据基本条例第63条，提出的适当的命名提案；
- The characteristics in which the EDV is distinct from the initial variety. /// EDV特异于原始品种的性状
- A declaration that the EDV is a variety within the meaning of Article 5 BR; /// 关于EDV符合基本条例第5条定义的声明；
- If it exists, an official description of the variety /// 对品种的官方描述（如有）



## Request /// 提交请求

- In case the request is made by the titleholder of the IV and the breeder of the EDV, such request shall show signatures of both parties (request by 2 different parties); /// 请求由原始品种权利人和EDV育种者提出的（两方提出请求），应附有双方签名；
- In case the request was made by only one person, the acknowledgement signed by the other party or the final decision or judgment (ex: declaratory judgment from a national court) with an identification of the varieties concerned. /// 请求仅由一方提出的，应提交由另一方签署的确认书，或提交最终判定或判决（如由国家法院宣告的判决），以及相关品种 的识别信息。

[Articles 87 and 99 BR]





## Decision not to register EDV /// 不予登记决定

- Where the holder of the initial variety and the breeder of the EDV are the same (natural or legal) person, the EDV will not be registered /// 原始品种权利人与EDV育种人为同一人的（自然人或法人），不予登记。



- Decisions not to register particulars of an EDV into the Register of CPVRs can be subject to appeal pursuant to Art. 67 BR. /// 可根据基本条例第6条对不予登记EDV的决定提起上诉。



## Relevant Case-law /// 相关判例

## DANGYPMINI – BLANCANIEVES

Judgement of the District Court of The Hague /// 海牙地区法院判决  
case BIE 2005/79 (13-7-2005)



Dangypmini (Million Stars®)



Blancanieves

## Facts /// 案情

- The owner of ‘Dangypmini’ claimed that ‘Blancanieves’ was an EDV. /// “Dangypmini”所有者声称“Blancanieves”为EDV。
- They provided a search report which, on the basis of genetic tests, concluded that there was a high degree of relationship between both varieties. /// 该所有者提供了检索报告。报告基于遗传测序，判定两个品种之间存在高度亲缘关系。
- The owner of ‘Blancanieves’ submitted another report stating the opposite conclusion. /// “Blancanieves”所有者提供了另一份结论截然相反的报告。
- CPVO assessment established that 17 out of 21 observable phenotypical characteristics were different between the two varieties. /// 经欧盟植物品种局评估，在21个可观测表型性状中，17个存在品种间差异。



## Decision of the Court /// 法院判决

- The Court concluded that even if ‘Dangypmini’ had been used to breed ‘Blancanieves’ it could not be considered an EDV. /// 法院认为，即使“Dangypmini”被用于繁殖“Blancanieves”，也不能被视为EDV。
- The Court noted that both varieties differed in a large number of characteristics concerning shape and construction (morphology). /// 法院指出，在形状、结构（形态学）等方面，两个品种的性状存在较大差异。
- The Court considered that the differences found by the CPVO between the varieties were so substantial in number and significance that they do not just represent one or few differences as required for an EDV under Art. 14.5 UPOV 91. /// 法院认为，欧盟植物品种局发现品种间存在诸多重大差异，不符合UPOV（1991年文本）第14条第5款中，关于EDV与原始品种应当仅有一个或数个差异的规定。



## GLADIO – SIRIO CL

Judgement of First Civil Division Commercial  
Court of Turin, Italy

意大利都灵商事法院第一民事庭

Case 3519/2015 (14-05-2015)



## Facts /// 案情

- The owner of ‘Gladio’ considered ‘Sirio CL’ an EDV because 35 out of the 38 morphological characteristics of the variety were the same /// “Gladio” 所有者认为 “Sirio CL” 是 EDV，因为该品种38个形态性状中，有35个相同。
- ‘Sirio CL’ was developed using ‘Gladio’ and material of ‘Clearfield’ /// “Sirio CL” 系使用 “Gladio” 和 “Clearfield” 繁殖材料获得。
- The technical expert concluded that it was not an EDV /// 技术专家认为，该品种并非EDV



## Decision of the Court /// 法院判决

- The Court concluded that the differences that may exist between the initial and the derived variety are irrelevant if the second variety predominantly conforms to the IV through the characteristics resulting from the genotype of the IV. /// 法院认为，如果派生品种通过原始品种基因型产生的性状基本与原始品种相同，则原始品种和衍生品种之间可能存在的差异并不重要。
- The Court also said that the the genetically inheritable characteristics are to be given prevalence to the superficial features that may be influenced by the environment. /// 法院指出，可遗传性状应当视为优于可能受环境影响的表观性状。
- ‘Sirio CL’ found an EDV because it reproduced the 4 genetically inheritable characteristics of ‘Gladio’. /// “Sirio CL” 是EDV，因为其复现了“Gladio”的4个可遗传性状。





# Example of ISF guidelines to handle conflicts

## ISF指南示例：冲突处理

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## Example of ISF Guidelines in Ryegrass /// ISF指南示例：黑麦草

### Guidelines for Handling a Dispute on Essential Derivation in Ryegrass

(Adopted by ISF Forage and Turf Crops Section, November 2009)

1. The 1991 Act of the UPOV Convention introduced the concepts of essential derivation and dependency from an initial variety (i.v.).
2. The Forage Plants Section of ASSINSEL conducted a study in 1997 and 1998 to evaluate tools and to determine a possible threshold for assessing putative essential derivation.
3. Based on the results of that study "Principles of a Code of Conduct in Essentially Derived Varieties of Perennial Ryegrass" were adopted by the Section in 2002. These guidelines fully replace that Code of Conduct.
4. In 2005 the ISF Forage and Turf Crops Section decided to conduct a new experiment with a new testing protocol using SSR markers on bulked plants instead of using AFLP markers on individual plants.
5. As the results of the new experiment (available at the ISF Secretariat on request) are adequate for the purpose it is now agreed that:
  - a. The Jaccard coefficient is an effective measure of genetic similarity between varieties of perennial ryegrass when SSR markers are used, on bulked plants of a variety.
  - b. Once the coefficient is 0.6 (EDV threshold) or higher, the burden of the proof shifts to the breeder of the putative EDV in question.
  - c. In this instance, breeders of the initial and putative essentially derived varieties may initiate a discussion and try to reach an amicable settlement.
  - d. If an amicable settlement cannot be reached:
    - i. The parties may ask for arbitration according to ISF's "Regulation for the Arbitration of Disputes concerning Essential Derivation"; or
    - ii. A party may decide to go to court.

**Source 资料来源: ISF fordert die Länder auf  
Anwendbare Schwellenwerte für GMO-Saatgut  
anzunehmen (worldseed.org)**



Disease Resistance

Phytosanitary Matters

Plant Breeding

Seed Health

Seed Treatment

**Trade Rules**

TRADE RULES

DISPUTE SETTLEMENT

**ESSENTIAL DERIVATION**

ERRORS &amp; OMISSIONS INSURANCE

ISF has adopted arbitration procedure rules tailored to the technical and legal aspects of essential derivation in plant breeding.

- [Regulation for the Arbitration of Disputes concerning Essential Derivations \(RED\)](#)

[Explanatory notes](#) clarify and provide guidance on numerous provisions of these rules. RED is based on a threshold for essential derivation, measured as the genetic distance between varieties, above which the breeder of the putative essentially derived variety must demonstrate that his variety has not been predominantly derived from the initial variety.

RED does not anticipate any special requirements for the arbitrators and the choice of arbitrators is at the discretion of the disputing parties. To assist parties, ISF provides a [list of international arbitrators](#) who have the knowledge to handle a dispute on essential derivation.

The ISF Crop Sections has adopted guidelines for dealing with disputes on essentially derived varieties of [perennial ryegrass](#), [maize](#), [oilseed rape](#), [cotton](#) and [lettuce](#) and [button mushrooms](#).

The [protocol](#) for assessing the genetic distance between diploid perennial ryegrass varieties; the list of the 3072 [SNP markers](#) used in the guidelines for maize; and the [technical rules](#) for establishing a threshold for essential derivation are available upon request.



THANK YOU  
感谢聆听

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