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EXPLANATORY NOTES ON

ESSENTIALLY DERIVED VARIETIES

UNDER THE 1991 ACT OF THE UPOV CONVENTION

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to be considered by

the Administrative and Legal Committee at its seventy-third session to be held in Geneva on October 25, 2016

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Note for Draft version

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Table of contents

PREAMBLE	3
SECTION I: PROVISIONS OF ESSENTIALLY DERIVED VARIETIES	4
(a) Relevant provisions of the 1991 Act of the UPOV Convention	
(c) Scope of the breeder's right with respect to initial varieties and essentially derived varieties	7
(d) Territoriality of protection of initial varieties and essentially derived varieties	
SECTION II: ASSESSMENT OF ESSENTIALLY DERIVED VARIETIES	.14

EXPLANATORY NOTES ON ESSENTIALLY DERIVED VARIETIES UNDER THE 1991 ACT OF THE UPOV CONVENTION

PREAMBLE

1. The Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants, held in Geneva from March 4 to 19, 1991 (Diplomatic Conference), adopted the following resolution:

"Resolution on Article 14(5)"

"The Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants held from March 4 to 19, 1991, requests the Secretary-General of UPOV to start work immediately after the Conference on the establishment of draft standard guidelines, for adoption by the Council of UPOV, on essentially derived varieties."

- 42. The purpose of t-These Explanatory Notes is to provide guidance on "Essentially Derived Varieties" under the 1991 Act of the International Convention for the Protection of New Varieties of Plants (UPOV Convention). The purpose of this guidance is to assist members of the Union and relevant stakeholders in their considerations in matters concerning essentially derived varieties. The only binding obligations on members of the Union are those contained in the text of the UPOV Convention itself, and these Explanatory Notes must not be interpreted in a way that is inconsistent with the relevant Act for the member of the Union concerned.
- 23. These Explanatory Notes are divided into two sections, Section I: "Provisions of essentially derived varieties", provides guidance on the notion of essentially derived varieties and Section II: "Assessment of essentially derived varieties", provides guidance on assessing whether a variety is essentially derived.

This Resolution was published as "Final Draft" in document DC/91/140 (see Records of the Diplomatic Conference for the Revision of the International Convention for the Protection of New Varieties of Plants, UPOV Publication No. 346 (E) "Further instruments adopted by the Conference", page 63.

SECTION I: PROVISIONS OF ESSENTIALLY DERIVED VARIETIES

(a) Relevant provisions of the 1991 Act of the UPOV Convention

THE RIGHTS OF THE BREEDER

Article 14

Scope of the Breeder's Right

[...]

- (5) [Essentially derived and certain other varieties] (a) The provisions of paragraphs (1) to (4)* shall also apply in relation to
- (i) varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety,
- (ii) varieties which are not clearly distinguishable in accordance with Article 7 from the protected variety and
 - (iii) varieties whose production requires the repeated use of the protected variety.
- (b) For the purposes of subparagraph (a)(i), a variety shall be deemed to be essentially derived from another variety ("the initial variety") when
- (i) it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety,
 - (ii) it is clearly distinguishable from the initial variety and
- (iii) except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.
- (c) Essentially derived varieties may be obtained for example by 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.
- * The provisions in Article 14(1) to (4) of the 1991 Act of the UPOV Convention are as follows:
 - (1) [Acts in respect of the propagating material] (a) Subject to Articles 15 and 16, the following acts in respect of the propagating material of the protected variety shall require the authorization of the breeder:
 - (i) production or reproduction (multiplication),
 - (ii) conditioning for the purpose of propagation,
 - (iii) offering for sale,
 - (iv) selling or other marketing,
 - (v) exporting,
 - (vi) importing,
 - (vii) stocking for any of the purposes mentioned in (i) to (vi), above.
 - (b) The breeder may make his authorization subject to conditions and limitations.

- (2) [Acts in respect of the harvested material] Subject to Articles 15 and 16, the acts referred to in items (i) to (vii) of paragraph (1)(a) in respect of harvested material, including entire plants and parts of plants, obtained through the unauthorized use of propagating material of the protected variety shall require the authorization of the breeder, unless the breeder has had reasonable opportunity to exercise his right in relation to the said propagating material.
- (3) [Acts in respect of certain products] Each Contracting Party may provide that, subject to Articles 15 and 16, the acts referred to in items (i) to (vii) of paragraph (1)(a) in respect of products made directly from harvested material of the protected variety falling within the provisions of paragraph (2) through the unauthorized use of the said harvested material shall require the authorization of the breeder, unless the breeder has had reasonable opportunity to exercise his right in relation to the said harvested material.
- (4) [Possible additional acts] Each Contracting Party may provide that, subject to Articles 15 and 16, acts other than those referred to in items (i) to (vii) of paragraph (1)(a) shall also require the authorization of the breeder.
- (b) Defining an essentially derived variety

Article 14(5)(b) of the 1991 Act of the UPOV Convention

- (b) For the purposes of subparagraph (a)(i), a variety shall be deemed to be essentially derived from another variety ("the initial variety") when
- (i) it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety,
 - (ii) it is clearly distinguishable from the initial variety and
- (iii) except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.

Predominantly derived from the initial variety (Article 14(5)(b)(i))

- 4. The requirement of predominant derivation from an initial variety means that a variety can only be essentially derived from one initial variety. The intention is that a variety should only be essentially derived from another variety when it retains virtually the whole genotype of the other variety. A derived variety could not, in practice, retain the expression of the essential characteristics of the variety from which it is derived unless it is almost entirely derived from that initial variety.
- 5. The phrase "while retaining the expression of the essential characteristics" requires that the expression of the essential characteristics conforms to and be derived from the initial variety.
- 6. The following might be considered in relation to the notion of "essential characteristics":
 - (i) essential characteristics, in relation to a plant variety, means heritable traits that are determined by the expression of one or more genes, or other heritable determinants, that contribute to the principal features, performance or value of the variety;
 - (ii) characteristics that are important from the perspective of the producer, seller, supplier, buyer, recipient, or user;
 - (iii) characteristics that are essential for the variety as a whole, including, for example, morphological, physiological, agronomic, industrial and biochemical characteristics;

- (iv) essential characteristics may or may not be phenotypic characteristics used for the examination of distinctness, uniformity and stability (DUS);
- (v) essential characteristics are not restricted to those characteristics that relate only to high performance or value (for instance, disease resistance may be considered as an essential characteristic when the variety has susceptibility to disease);
- (vi) essential characteristics may be different in different crops/species.

Clearly distinguishable from the initial variety (Article 14(5)(b)(ii))

7. The phrase "it is clearly distinguishable from the initial variety" establishes that essential derivation is concerned only with varieties that are clearly distinguishable, in accordance with Article 7, from the initial variety and which are accordingly protectable. Article 14(5)(a)(ii) would apply if the variety is "not clearly distinguishable in accordance with Article 7 from the protected variety".

Conformity with the initial variety in the expression of the essential characteristics (Article 14(5)(b)(iii)

- 8. A judgment on the question on the degree of conformity must be reached on the basis of the essential characteristics which result from the genotype of the initial variety.
- 9. The words "except for the differences which result from the act of derivation" do not set a limit to the amount of difference which may exist where a variety is considered to be essentially derived. A limit is, however, set by Article 14(5)(b)(i) and (iii). The differences must not be such that the variety fails "to retain the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety".
- 10. The examples given in Article 14(5)(c) make clear that the differences which result from the act of derivation should be one or very few. However, if there are only one or few differences that does not necessarily mean that a variety is essentially derived. The variety would also be required to fulfil the definition stated in Article 14(5)(b).
- 11. The derived variety must retain almost the totality of the genotype of the initial variety and be different from that variety by a very limited number of characteristics.

Examples on ways in which an essentially derived variety may be obtained - Article 14(5)(c)

- 3.12. The Convention does not provide clarification of terms such as "predominantly derived" or "essential characteristics". However, t-The Convention provides certain examples of some ways in which an essentially derived variety may be obtained (Article 14(5)(c): "Essentially derived varieties may be obtained for example by 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.").
- 4.13. The use of the word "may" in Article 14(5)(c) indicates that those ways may not necessarily result in an essentially derived variety. In addition, the Convention clarifies that those are examples and do not exclude the possibility of an essentially derived variety being obtained in other ways.

Method of breeding

- 14. There is a need to consider the situation in different crops and species and the method of breeding in the determination of essentially derived varieties.
- 15. Whether a mutation is naturally or artificially induced is irrelevant. For instance, the genetic change may result in a mutant that no longer retains the expression of the essential characteristics that result from the genotype of the initial variety.

Direct and indirect derivation

16. The wording of Article 14(5)(b)(i) explains that essentially derived varieties can be predominantly derived from a variety that is itself predominantly derived from the initial variety, thereby indicating that

essentially derived varieties can be obtained, either directly or indirectly, from the "initial variety". Varieties can be predominantly derived from the initial variety "A", either directly, or indirectly via varieties "B", "C", "D", or "E" ... etc., and will still be considered essentially derived varieties from variety "A" if they fulfill the definition stated in Article 14(5)(b).

- 5<u>17</u>. Essentially derived varieties are obtained, either directly or indirectly, from a variety which is called the "initial variety". In the example in Figure 1, variety B is an essentially derived variety from variety A and is predominantly derived from variety A. In the example in Figure 2, Variety C is essentially derived from Initial Variety 'A', but is predominantly derived from variety B.
- 518. Essentially derived varieties can also be indirectly obtained from an initial variety. Article 14(5)(b)(i) provides that an essentially derived variety can be "predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety." In the example in Figure 2, Variety C has been predominantly derived from variety B, variety B being itself predominantly derived from variety A (the initial variety). Variety C is essentially derived from initial variety A, but is predominantly derived from variety B.
- <u>619</u>. Irrespective of whether variety C has been obtained directly from the initial variety A or not, it is an essentially derived variety from variety A if it fulfills the definition stated in Article 14 (5) (b).
- 720. Another example of an indirect way in which it might be possible to obtain an essentially derived variety from an initial variety could be the use of a hybrid variety to obtain a variety which is essentially derived from one of the parent lines of the hybrid.
- 21. The use of molecular data from an initial variety, for the purpose of selection of genotypes from a population that is mostly related to the initial variety, to produce a variety with a similar phenotypic expression of the essential characteristics may provide an indication of predominant derivation, if the variety fulfills the definition in Article 14(5)(b).

Proposal by ESA and ISF a

ESA and ISF to provide for a joint proposal on paragraphs 20 and 21 for consideration by the CAJ at its seventy third session. ESA and ISF would be invited to present to the CAJ the background issues to paragraphs 20 and 21 and the proposed text.

(c) Scope of the breeder's right with respect to initial varieties and essentially derived varieties

1991 Act of the UPOV Convention Article 14 (5) (a) (i)

- (5) [Essentially derived and certain other varieties] (a) The provisions of paragraphs (1) to (4) shall also apply in relation to
 - (i) varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety,
- 822. The relationship between the initial variety (variety A) and an essentially derived variety (varieties B and C B, C, etc.) is irrespective of whether a plant breeder's right has been granted to those varieties A, B or C. Variety A will always be the initial variety for varieties B and C B, C, etc., and varieties B and C B, C, etc., will always be essentially derived varieties from variety A. However, if the initial variety is protected, that will have certain consequences in relation to the essentially derived varieties B and C B, C, etc. (see section (c)).

Figure 1: Essentially Derived Variety "B" Variety "A" is not an EDV from any other variety

Initial Variety "A" bred by Breeder 1

- not essentially derived from any other variety



Essentially Derived Variety "B"

bred by Breeder 2

- predominantly derived from "A"
 retains expression of essential characteristics of "A"
 clearly distinguishable from "A"
 conforms to "A" in essential characteristics (except for differences from act of derivation)

Figure 2: EDV "C"and, "D" to "Z" predominantly derived from EDV "B" and "C"

Initial Variety "A"

bred by Breeder 1

- not essentially derived from any other variety



Essentially Derived Variety "B"

bred by Breeder 2

- predominantly derived from "A"
- retains expression of essential characteristics of "A"
- clearly distinguishable from "A"
- conforms to "A" in essential characteristics (except for differences from act of derivation)



Essentially Derived Variety "C"

bred by Breeder 3

- predominantly derived from "A" or "B"
- retains expression of essential characteristics of "A"
- clearly distinguishable from "A"
- conforms to "A" in essential characteristics (except for differences from act of derivation)



Variety D



Variety E



Essentially Derived Variety "Z" bred and protected by Breeder N

- predominantly derived from "A", or "B", "C", "D", or "E" etc...
- retains expression of essential characteristics of "A"
- clearly distinguishable from "A"
- conforms to "A" in essential characteristics (except for differences from act of derivation)

923. Essentially derived varieties are eligible for plant breeders' rights in the same way as for any variety, if they fulfill the conditions established in the Convention (see Article 5 of the 1991 Act of the UPOV Convention). If an essentially derived variety is protected, it is necessary to obtain the authorization of the breeder of the essentially derived variety as provided in Article 14 (1) of the UPOV Convention. However, the provisions of Article 14(5)(a)(i) extend the scope of the right set out in Article 14(1) to (4) of the protected initial variety to essentially derived varieties. Therefore, if variety A is a protected initial variety, the acts included in Article 14(1) to (4) concerning essentially derived varieties require the authorization of the titleholder of variety A. In this document the term "commercialization" is used to cover the acts included in Article 14(1) to (4). Thus, when there is a plant breeder's right on both the initial variety (variety A) and an essentially derived variety (variety B), the authorization of both the breeder of the initial variety (variety A) and the breeder(s) of the essentially derived variety (variety B).

4024. Once the plant breeder's right of the initial variety (variety A) has ceased, the authorization of the breeder of the initial variety is no longer required for the commercialization of variety B. In such a situation, and if the plant breeder's right of the essentially derived variety is still valid, only the authorization of the breeder of the essentially derived variety would be required for the commercialization of variety B. Furthermore, if the initial variety was never protected, only the authorization of the breeder of the essentially derived variety would be required for the commercialization of variety B.

Summary

4425. Figures 3 and 4 provide a summary of the situation described above. It is important to note that the scope of the breeder's right is only extended to essentially derived varieties in respect of a protected initial variety. In that regard, it should also be noted that a variety which is essentially derived from another variety cannot be an initial variety (see Article 14(5)(a)(i)). Thus, in figure 3, the rights of Breeder 1 extend to EDV "B", and EDV "C" and EDV "Z". However, although EDV "C" is predominantly derived from EDV "B", Breeder 2 has no rights as far as EDV "C" is concerned. In the same way, Breeders 2 and 3 have no rights as far as EDV "Z" is concerned. Another important aspect of the provision on essential derivation is that no rights extend to essentially derived varieties if the initial variety is not protected. Thus, in figure 4, if variety "A" was not protected or if variety "A" is no longer protected (e.g. because of expiration of the period of protection, or cancellation or nullification of the plant breeders' rights), the authorization of Breeder 1 would no longer be required to be able to commercialize varieties "B" and, "C" and "Z".

Figure 3: Initial Variety protected and EDVs protected

Initial Variety "A" (PROTECTED) bred and protected by Breeder 1 **Essentially Derived Variety "B"** bred and protected by Breeder 2 - predominantly derived from "A" Commercialization:* - retains expression of essential characteristics of "A" authorization of - clearly distinguishable from "A" Breeders 1 and 2 required - conforms to "A" in essential characteristics (except for differences from act of derivation) **Essentially Derived Variety "C"** bred and protected by Breeder 3 Commercialization: - predominantly derived from "A" or "B" authorization of - retains expression of essential characteristics of Breeders 1 and 3 required "A"- clearly distinguishable from "A" (authorization of Breeder 2 not - conforms to "A" in essential characteristics required) (except for differences from act of derivation) Variety D Variety E **Essentially Derived Variety "Z"** bred and protected by Breeder N Commercialization: predominantly derived from "A", "B", "C", "D", or authorization of Breeders 1 and N required - retains expression of essential characteristics of "A" (authorization of Breeders 2, 3, - clearly distinguishable from "A" etc. not required)

 conforms to "A" in essential characteristics (except for differences from act of derivation)

[&]quot;Commercialization" encompasses the acts concerning a protected variety which require the authorization of the breeder according to Article 14(1) to (4) of the 1991 Act of the UPOV Convention.

Figure 4: Initial Variety NOT protected and EDVs protected

Initial Variety "A" (NOT PROTECTED) bred by Breeder 1 **Essentially Derived Variety "B"** bred and protected by Breeder 2 Commercialization: - predominantly derived from "A" authorization of - retains expression of essential characteristics of "A" **Breeder 2** required - clearly distinguishable from "A" (authorization of Breeder 1 - conforms to "A" in essential characteristics not required (except for differences from act of derivation) **Essentially Derived Variety "C"** bred and protected by Breeder 3 Commercialization: - predominantly derived from "A" or "B" authorization of - retains expression of essential characteristics of "A" **Breeder 3 required** - clearly distinguishable from "A" (authorization of Breeders 1 - conforms to "A" in essential characteristics and 2 not required) (except for differences from act of derivation) Variety D Variety E **Essentially Derived Variety "Z"** bred and protected by Breeder N Commercialization: predominantly derived from "A", "B", "C", "D", or authorization of

Breeder N required

(authorization of Breeders 1, 2,

3, etc. not required)

"E" etc...

retains expression of essential characteristics of "A"

 conforms to "A" in essential characteristics (except for differences from act of derivation)

clearly distinguishable from "A"

[&]quot;Commercialization" encompasses the acts concerning a protected variety which require the authorization of the breeder according to Article 14(1) to (4) of the 1991 Act of the UPOV Convention.

(d) Territoriality of protection of initial varieties and essentially derived varieties

26. The scope of the breeder's right applies only to the territory of a member of the Union where the breeder's right has been granted and is in force. Therefore, the breeder of an initial variety only has rights in relation to an essentially derived variety if the initial variety is protected in the territory concerned. Furthermore, the breeder of an essentially derived variety only has rights in relation to that variety if it is protected in its own right in the territory concerned, or if the breeder of the essentially derived variety is also the breeder of the initial variety and the initial variety is protected in the territory concerned.

(e) Transition from an earlier Act to the 1991 Act of the UPOV Convention

4227. Members of the Union which amend their legislation in line with the 1991 Act of the UPOV Convention are able may choose to offer the benefits of the 1991 Act to varieties which were protected under an earlier law. Thus, it is possible for members of the Union to offer the scope of protection provided by Article 14(5) to varieties which were granted protection under an earlier law. However, it should be noted that the conferring of the new scope of rights on a previously protected initial variety could impose new requirements concerning the commercialization of essentially derived varieties, for which the breeder's authorization was not previously required.

4328. One means of dealing with such a situation is the following: for varieties for which protection was granted under the earlier law and for which there is a remaining period of protection which falls under the new law, to limit the scope of rights on a protected initial variety to essentially derived varieties whose existence was not a matter of common knowledge at the time that the new law came into effect. With respect to varieties whose existence is a matter of common knowledge, the General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants (Document TG/1/3) explains the following:

"5.2.2 Common Knowledge

- "5.2.2.1 Specific aspects which should be considered to establish common knowledge include, among others:
- "(a) commercialization of propagating or harvested material of the variety, or publishing a detailed description;
- "(b) the filing of an application for the grant of a breeder's right or for the entering of a variety in an official register of varieties, in any country, which is deemed to render that variety a matter of common knowledge from the date of the application, provided that the application leads to the grant of a breeder's right or to the entering of the variety in the official register of varieties, as the case may be;
 - "(c) existence of living plant material in publicly accessible plant collections.
- "5.2.2.2 Common knowledge is not restricted to national or geographical borders."

[&]quot;Commercialization" encompasses the acts concerning a protected variety which require the authorization of the breeder according to Article 14(1) to (4) of the 1991 Act of the UPOV Convention.

SECTION II: ASSESSMENT OF ESSENTIALLY DERIVED VARIETIES

4429. A decision on whether to grant protection to a variety does not take into account whether the variety is essentially derived or not: the variety will be protected if the conditions for protection as set out in Article 5 of the UPOV Convention are fulfilled (novelty, distinctness, uniformity, stability, variety denomination, compliance with formalities and payment of fees). If it is subsequently concluded that the variety is an essentially derived variety still has all the rights conferred by the UPOV Convention. However, 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.

- 15. With regard to establishing whether a variety is an essentially derived variety, a common view expressed by members of the UPOV is that the existence of a relationship of essential derivation between protected varieties is a matter for the holders of plant breeders' rights in the varieties concerned.
- 30. The purpose of this Section is to provide guidance on assessing whether a variety is essentially derived and not whether the variety meets the requirements for the grant of a breeder's right.
- 31. Both predominant derivation (e.g. evidence of genetic conformity with the initial variety) and conformity on the essential characteristics (e.g. evidence on conformity in the expression of the essential characteristics of the initial variety) are possible starting points in providing an indication that a variety might be essentially derived from the initial variety.
- 32. In some situations, relevant information provided by the breeder of the initial variety on predominant derivation and/or on conformity on the essential characteristics might be used as the basis for the reversal of the burden of proof. In such situations, the other breeder might need to prove that the other variety is not essentially derived from the initial variety. For instance, the other breeder would need to provide information on the breeding history of the other variety to prove that the variety was not essentially derived from the initial variety.

4633. UPOV has established a section on its website (ABOUT_UPOV SYSTEM: Legal Resources: Jurisprudence: http://www.upov.int/about/en/legal resources/case_laws/index.html) where case law relevant to plant breeders' rights, including case law concerning essentially derived varieties, is published.

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^a The CAJ, at its seventy-second session, held in Geneva on October 26 and 27, 2015, agreed that "[A] joint proposal on paragraphs 20 and 21 to be provided by ESA and ISF for consideration by the CAJ at its seventy-third session. ESA and ISF would be invited to present to the CAJ the background issues to paragraphs 20 and 21 and the proposed text." (see document CAJ/72/9 "Report on the Conclusions", paragraph 11).