

## SCHEDULE 2

### INFORMATION TO BE INCLUDED IN APPLICATIONS FOR CONSENT TO RELEASE OR MARKET ORGANISMS OTHER THAN GENETICALLY MODIFIED HIGHER PLANTS

## PART II

### INFORMATION RELATING TO ORGANISMS

#### **Characteristics of donor, parental and recipient organisms**

3. Scientific name and taxonomy.
4. Usual strain, cultivar or other name.
5. Phenotypic and genetic markers.
6. The degree of relatedness between donor and recipient or between parental organisms.
7. The description of identification and detection techniques.
8. The sensitivity, reliability (in quantitative terms) and specificity of detection and identification techniques.
9. The description of the geographic distribution and of the natural habitat of the organisms including information on natural predators, prey, parasites and competitors, symbionts and hosts.
10. The organisms with which transfer of genetic material is known to occur under natural condition.
11. Verification of the genetic stability of the organisms and factors affecting that stability.
12. The following pathological, ecological and physiological traits -
  - (a) the classification of hazard according to existing Community rules concerning the protection of human health and the environment;
  - (b) the generation time in natural ecosystems, sexual and asexual reproductive cycle;
  - (c) information on survivability, including seasonability and the ability to form survival structures, including seeds, spores and sclerotia;
  - (d) pathogenicity, including infectivity, toxigenicity, virulence, allergenicity, carrier (vector) of pathogen, possible vectors, host range including non-target organisms and possible activation of latent viruses (proviruses) and ability to colonise other organisms;
  - (e) antibiotic resistance, and potential use of these antibiotics in humans and domestic organisms for prophylaxis and therapy;
  - (f) involvement in environmental processes, including primary production, nutrient turnover, decomposition of organic matter and respiration.
13. The sequence, frequency of mobilisation and specificity of indigenous vectors, and the presence in those vectors of genes which confer resistance to environmental stresses.
14. The history of previous genetic modifications.

#### **Characteristics of the vector**

15. The nature and source of the vector.

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16. The sequence of transposons, vectors and other non-coding genetic segments used to construct the genetically modified organisms and to make the introduced vector and insert function in those organisms.

17. The frequency of mobilisation, genetic transfer capabilities and/or methods of determination of the inserted vector.

18. The degree to which the vector is limited to the DNA required to perform the intended function.

#### **Characteristics of the modified organisms**

19. The methods used for the modification.

20. The methods used –

- (a) to construct the insert or inserts and to introduce it or them into the recipient organism;
- (b) to delete a sequence.

21. The description of any insert and/or vector construction.

22. The purity of the insert from any unknown sequence and information on the degree to which the inserted sequence is limited to the DNA required to perform the intended function.

23. The methods and criteria used for selection.

24. The sequence, functional identity and location of the altered, inserted or deleted nucleic acid segment or segments in question, and in particular any known harmful sequence.

#### **Characteristics of the genetically modified organisms in their final form**

25. The description of genetic trait or traits or phenotypic characteristics and in particular any new traits and characteristics which may be expressed or no longer expressed.

26. The structure and amount of any vector or donor nucleic acid remaining in the final construction of the modified organisms.

27. The stability of the organisms in terms of genetic traits.

28. The rate and level of expression of the new genetic material in the organisms, and the method and sensitivity of measurement of that rate and level.

29. The activity of the gene product.

30. The description of identification and detection techniques, including techniques for the identification and detection of the inserted sequence and vector.

31. The sensitivity, reliability (in quantitative terms), and specificity of detection and identification techniques.

32. The history of previous releases or uses of the organisms.

33. In relation to human health, animal health and plant health –

- (a) the toxic or allergenic effects of the organisms and/or their metabolic products,
- (b) the comparison of the organisms to the donor, recipient or (where appropriate) parental organisms regarding pathogenicity,
- (c) the capacity of the organisms for colonisation, and
- (d) if the organisms are pathogenic to humans who are immunocompetent –

- (i) diseases caused and mechanism of pathogenicity including invasiveness and virulence,
  - (ii) communicability,
  - (iii) infective dose,
  - (iv) host range and possibility of alteration,
  - (v) possibility of survival outside of human host,
  - (vi) presence of vectors or means of dissemination,
  - (vii) biological stability,
  - (viii) antibiotic resistance patterns,
  - (ix) allergenicity, and
  - (x) availability of appropriate therapies.
- (e) the other product hazards.