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GUIDANCE DOCUMENT
Guidelines on comparability, extrapolation, group tolerances and data requirements for setting MRLs

Revision history

When	What
Rev. 9 of 24.03.2011	Inclusion of paragraph 1.1 Modification of paragraphs 4.1, 6.1.2, 6.2 New distribution of crops in France (Annex 1) List of major crops (table 1) Extrapolation tables 3 and 4
Rev. 8 of 1.02.2008	Extrapolation tables (tables 3 to 6)

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Comparability, extrapolation, group tolerances and data requirements

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Table 4 Extrapolation of active substances (last application before the consumable part of the crop has started to be formed).

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1 Introduction

This document provides guidelines on comparability, extrapolation, group tolerances and data requirements for pesticides residues in food and raw agricultural commodities. It is aimed not only at those intending either to register a plant protection product or to establish a maximum residue limit (MRL) for a plant protection product in a specific commodity in the European Union but also at those responsible for regulating such substances and commodities. Although self-standing, it is complementary to other guideline documents with which it is best read.

On the basis of existing knowledge and findings it can be assumed that, taking the least favourable trial conditions, the residue behaviour in/on plants or plant products is, under certain circumstances, comparable. In such cases, existing knowledge about the residue behaviour in one situation can be transferred to another, and the scale of the trials for the comparable situation can be reduced, or trials may even be completely unnecessary.

In the following guidelines, residue situations which are assumed to be comparable on the basis of currently available information are described, and recommendations are made as to the type and scale of the residue trial results which have to be submitted. However, new findings may result in a change of assessment of comparability.

A number of rules are based on conventions and considerations of plausibility.

Naturally, it is not possible to describe all conceivable situations, and even in established cases special factors frequently intervene which are difficult to evaluate. Deviations from these guidelines may be acceptable if fully documented and scientifically justified.

The responsibility of the applicant to submit all the data necessary for the evaluation remains unaffected.

1.1 Application date

Revision 9 of this guidance document is applicable as from 1 April 2011, with the exception of "new major crops" (see paragraph 6.1.2).

For "new major crops" the number of residue trials as described in Annex II point 6.3 and Annex III point 8.2 of Directive 91/414/EEC will apply from 1 April 2013 in order to allow applicants to generate further residue trials.

As a consequence, in the framework of Articles 6 to 11 of Regulation (EC) No 396/2005 (routine MRL applications), it is appropriate to consider the **new major crops** only from **1 April 2013**.

In the framework of **Article 12** of the Regulation (review of MRLs):

1) it is appropriate to consider the new major crops for substances included/non included after 1 April 2013;

2) for substances included/non included before 1 April 2013 being reviewed under Article 12 until that date, EFSA should identify if additional residue trials are necessary to comply with the new classification of "major crops". The applicant should submit those trials to the Rapporteur Member State within 2 years from the publication of the Commission Regulation following the relevant EFSA opinion on Article 12.

2 General principles

2.1 Least favourable trial conditions

When testing residue behaviour, the principle is to choose the trial conditions that, under realistic circumstances, would be the least favourable. The 'least favourable trial conditions' are those which under the given circumstances produce what would probably be the highest residue situation according to intended use (e.g., maximum (proposed) number of applications, highest prescribed dosage, shortest PHI). The trial conditions should also be representative of main growing regions, influence of varieties, standard application methods and times, spreading of the trials over more than one - usually two - growing seasons.

It is mainly the results of controlled residue trials that form the basis for the estimation of maximum residue levels of plant protection products in or on products of plant and animal origin. Maximum residue levels are set

as high as necessary on the basis of application as provided for authorization and as low as possible for reasons of preventive health care, and never under any circumstances higher than can be justified on toxicological grounds. In individual cases, the result of this may be that if the least favourable application conditions provided for in the authorization cease to apply, then the maximum residue limit may be set on the basis of the next most unfavourable conditions. In this case, results of residue trials must always be submitted if it can be supposed with good reason that on consideration of these next most unfavourable residue conditions the maximum residue limit might possibly be reduced by at least one category.

2.2 Definition of comparability

Residue levels for relevant different harvested crops are considered to be comparable if:

1. (a) assuming a standard distribution of data the respective 'mean to one-sigma-limit' ranges overlap; or
(b) assuming a non-standard distribution of data the respective 'median to upper quartile (75 % quantile) ranges overlap;

and

2. if the resulting recommended maximum residue levels according to the recommended calculation procedure fall, into the same or a neighbouring maximum residue limit category after rounding up or down to the nearest maximum residue limit category. For this purpose the following methods of calculation are used:

- a) assuming a standard distribution of data:

$$R_{\max} = R + k \times s$$

R = mean residue
k = factor
s = standard deviation

- b) assuming a non-standard distribution of data:

$$R_{\text{calculated}} = 2 \times R_{0.75} \qquad R_{0.75} = 75 \% \text{ quantile}$$

For the source of the definitions, see also "Mitteilungen aus der Biologischen Bundesanstalt für Land- und Forstwirtschaft" (J.-R. Lundehn et al., 1990).

2.3 Comparative trials

Comparative trials at a single trial site must be organised in such a way that to the greatest possible extent genuinely comparable conditions can be expected. Owing to largely unpredictable weather conditions, trials at several different sites, with a sufficient regional spread, are necessary as a general principle. The number of trial sites depends on the question under investigation, but as a rule it should not be less than four for a major crop. The trials are to be carried out under conditions as close as possible to represent normal practical conditions of agriculture. Under special circumstances, however, it may also be appropriate to carry out trials under controlled conditions, e.g., in climate-controlled chambers, in which the factors that influence residue behaviour can be controlled.

2.4 Consideration of existing information and experience

The systematic evaluation of existing information and experience often make it possible to reduce the number of trials needed, or to answer the question under investigation without carrying out further trials. When evaluating trial results, existing information should always be considered and evaluated.

2.5 Properties of active substances (stability, volatility, mode of action, uptake and distribution)

It has been shown in certain cases that residue behaviour of different active ingredients is comparable. This presupposes that sufficient information (i.e. metabolism, physical-chemical properties, residue results) already exists for these active ingredients. If comparability is assumed, then this must be carefully substantiated with the existing information.

2.6 Non-relevant residues

Residues are considered to be non-relevant in the sense of the following rules if their content in the harvested product is below the limit of determination (i.e., generally between 0.01 and 0.1 mg/kg). This is often the case with the early application (e.g. applications in autumn or spring) of herbicides, applications of non-systemic insecticides and fungicides on fruits prior to flowering, and seed dressings.

The fact that no detectable residues occur or residues are non-relevant is often due to the properties of the active substance, the type and timing of application, the rate of application, and the results of metabolic studies and studies of the plant's uptake and distribution of the compound.

If no quantifiable residues occur under the least favourable trial conditions, no further trial results are required if intended use conditions are changed to less unfavourable ones.

If, however, in situations where non-relevant residues can be expected with a high degree of probability, then as an exception to the basic rules it may be possible for all trials to be carried out within one growing season. However caution must be used in generating only one seasons data for outdoor crops particularly if relevant residues occur in related crops since differences in residue profiles can occur between seasons. In any case, if contrary to expectations relevant detectable residues should be found, results must be obtained in a second growing season.

When the residues of an active substance are foreseen to be under the LOD and at least 2 residue trials confirm this then no further trials are normally necessary. In the case of relatively unstable residues, this interval should be checked.

3 **Changes in the trial parameters**

The following guidelines presuppose that in each case the original situation is sufficiently well documented.

If, when changes are made to the trial parameters, the obtaining of further residue results is considered not to be necessary, then thorough justification for this must be submitted. A justification could be, for instance, that existing trial results show that relevant residues are unlikely to occur.

3.1 Changes in formulation

Ideally, and as a general principle, residue trials should be carried out using the formulation to which the authorization applies, or for which the application has been made. If there is a significant change in formulation, therefore, new residue trials are, in principle, necessary. It has proved sufficient to carry out four comparative trials on each crop selected. Data are not needed for all crops, but should be generated for approximately 3 major crop groups which may be treated - data for a single representative crop for each group should be generated, e.g. a leafy crop, a root crop, a soft fruit, a tree fruit, a seed crop etc. The trials should preferably be carried out on crops that would be expected to show high levels of residues. The timing of treatment is also important in this situation. Where treatments are made to the soil or to the seed the formulation is not important and where treatment is to a very young crop the effect of co-formulants is likely to be minimal. In cases of minor changes in formulation, which would not be expected to have any influence on efficacy and residue behaviour, additional trials may be waived.

Notwithstanding the above, experience shows that EC, WP, WG, and SC formulations usually produce comparable residues (especially if the last application is more than seven days prior to harvest) and well-justified and documented departures from the above could be considered.

Changes in formulations on the basis of a change in the content of formulants need to be evaluated on a case by case basis. Special consideration should be given to changes in the content of adjuvants like wetting agents

which lead to a better penetration of the active substance into the plant particularly where the PHI is less than 7 days.

3.2 Changes in application rate

In order to encompass the least favourable trial conditions, the trials must as a matter of principle be carried out using the highest rate (e.g. kg/ha) of application. In the case of active substances which act via the soil (e.g., pre-emergence herbicides), the application rate appropriate for the particular type of soil should be used. In the case of increases or reductions of up to 25% in the rate of application of the active substance under otherwise identical conditions, experience suggests that the residue results can be assumed to be comparable. However, if residue trials with a higher application rate than the intended uses indicate that no detectable residues are to be expected, the number of trials can be reduced.

3.3 Changes in number of applications

In order to encompass the least favourable trial conditions, the trials must as a matter of principle be carried out using the maximum number of application provided for in the registered GAP. It is generally the last application prior to harvest that is crucial to residue behaviour in the harvested crop. The number of applications prior to flowering, on the other hand, is generally of lesser importance. In the case of relatively persistent residues in plants, the results can be assumed to be comparable if the number of applications are increased or reduced by not more than 25 % (e.g., 4 ± 1 or 8 ± 2 applications). In the case of relatively non-persistent residues in plants, the results can also be assumed to be comparable if the number of applications are increased or reduced by more than 25 %. Persistence should be defined on a case-by-case basis on the basis of residue-decline studies.

3.4 Changes in application method

Different application methods, such as spraying, drenching, dusting, misting and granule spreading, will as a rule not produce comparable residue results, and must therefore be documented separately. The results from normal spraying and low-volume spraying may be comparable for a comparable rate of application for the active substance per ha. However where both, low-volume and normal spray applications, are the usual methods, both methods of application ought to be documented according to standard application practice in the basic data set submitted.

In tall crops one should take note of the fact that the application rate may depend on the surface area of the leaves. For this reason in former times the amount applied was given in kg ai per hl. In such cases residue trials should be carefully planned. In certain circumstances it may be necessary to explain that a residue trial result fall within a given GAP.

3.5 Changes in timing of application; changes in pre-harvest interval

The stage of development of the crop at the time of application and the time intervals between applications, especially between the last two applications, are important factors influencing the level of residues. Because the least favourable residue situation is the determining factor when establishing maximum residue limits (MRLs), then applications at later stages of development will encompass applications made at earlier stages of development, just as applications at shorter intervals before harvesting will encompass applications at longer intervals before harvesting (but note Section 2.1).

In the case of changes in pre-harvest interval of not more than 25 %, experience has shown that the residue results can be assumed to be comparable.

3.6 Area of application (outdoors, under glass, in store, protective covering)

The results of outdoor trials are not normally comparable with the results of trials carried out under other conditions of application. The climatic conditions, above all, under glass, under plastic, or in climate-controlled chambers or in stores, but also the other parameters that differ from those in outdoor trials, generally create

markedly different residue situation than that found in outdoor testing. Therefore, separate studies are necessary for each area of application unless a 'worst case' can be clearly identified.

3.7 Simultaneous changes in several trial parameters

The 25 % rule (mentioned in Sections 3.2, 3.3 and 3.5 for purposes of comparability) only applies where just one of the parameters is changed. Where more than one parameter is changed at the same time, the effects may be cumulative, or may cancel each other out.

Thus, for example, increasing the application rate by 20 % while at the same time reducing the number of applications from 4 to 3 will probably result in a comparable residue behaviour. If, however, the number of applications were instead increased from 4 to 5, it would be likely that the residue behaviour would no longer be comparable. The stability of the active substance and the timing of applications and intervals between applications naturally also play a crucial part in this.

If more than two trial parameters are changed at the same time, experience suggests that it is then no longer possible to assume a comparable residue behaviour with any sufficient degree of certainty.

4 **Comparable climatic zones/weather influences**

One important parameter influencing the residue behaviour is the climatic difference between production areas. Due to the inherently higher level of homogeneity in residues arising from post-harvest treatments or protected crops, one should differentiate between outdoor applications, glasshouse applications and post-harvest treatments. Some of the following observations were recommended during the Scientific Workshop held at the Pesticides Safety Directorate, York, UK on 6-8 September 1999.

4.1 Outdoor applications

In case of outdoor applications it is assumed that for the carrying out of residue trials, the climatic conditions and weather influences in each of the two regions described below are comparable. However, trial data should be representative of the areas where Community authorization is granted or envisaged.

Northern and Central Europe:

Sweden, Norway, Iceland, Finland, Denmark, United Kingdom, Ireland, northern France, Belgium, The Netherlands, Luxembourg, Germany, Poland, Czech Republic, Slovakia, Austria, Hungary, Switzerland, Estonia, Latvia, Lithuania, Romania, Slovenia.

Southern Europe and the Mediterranean:

Spain, Portugal, Southern France, Italy, Greece, Malta, Croatia, Serbia, Bosnia and Herzegovina, FYROM (Former Yugoslav Republic of Macedonia), Turkey, Bulgaria, Cyprus.

Annex 1 illustrates the distribution of France between the two regions and the corresponding crops distribution..

Data from different countries within the same region may reflect different cultural practices and they might therefore be rejected. The agricultural practice defining the worst-case situation should be used to generate data to define the MRL. Results from regions that are not climatically comparable cannot in general serve as a total substitute for trials carried out in comparable regions. They do, however, add to knowledge about the residue behaviour of the active substance.

The evaluation of intended uses within the EU should be based on residue data mainly generated within the EU. Data from other climatic zones (e.g., in the USA) may, however, in individual cases provide supporting evidence for the evaluation of the residue situation in the Member States of the EU. An estimate of comparable climates can be looked up in a relevant compendium on geography (e.g. Müller-Hohenstein, 1981).

4.2 Glasshouse applications

In the past it was demonstrated by comparative trials that for protected crops (glasshouse, plastic tunnel where the environmental conditions can be controlled) only one zone in Europe may exist. In these trials especially the temperature was measured and it was shown that for growing crops under glass an optimum range in

temperature is necessary which is independent from the geographical region in Europe as defined above. Since cultivation under glass is predominantly a European practice, little data are available to show that this is true for the rest of the world. Cultural conditions were essentially optimised to suit the protected crop and it should be possible with further work (comparison of crop/growing conditions) to decide whether glasshouses could be considered as a "single zone" on a world-wide basis.

The evaluation of intended glasshouse uses within the EU should therefore be based on residue data generated within the EU assuming that this is one "single zone". Generally trials should be spread over different Member States (from both regions as designed above) and seasons.

In case of photo degradable active substances this proposal should be carefully considered. In such a case it may be necessary to still conduct trials in both regions as described in point 4.1.

4.3 Post-harvest treatments

Residues arising from post-harvest treatments are expected to have an inherently higher level of homogeneity and not to be affected by climatic conditions. Differences in residue level may be associated with different store types and an inhomogeneous distribution of the applied plant protection product within the stored products. With regard to the required number of trials post-harvest treatments were therefore considered as a "single zone" world-wide.

Post-harvest treatments on cereals should generally produce a homogeneous and predictable residue. Where the residue is persistent or where the required storage interval is small, the MRL may be set at the application rate without residue trials data. However, it should be noted that processing studies with incurred residues were likely to be necessary as a result of post-harvest treatments.

Post-harvest treatments on potatoes should also produce a predictable residue, but less homogeneous than for cereals and trials will be required. Post-harvest spraying or dipping of fruits and vegetables produces a less predictable residue, but possibly more homogeneous than for potatoes and trials will be required.

5 **Residue decline studies/values at harvest**

Residue decline studies are residue trials with samples taken usually on five occasions, of which two are often fixed times: the day of the final application and the time of harvesting. In all cases the proposed pre-harvest intervals, or growth stage at treatment, must be taken into account when taking samples. Residue decline studies are not normally required when there is no significant part of consumable crop present at the time of application.

Despite higher trial and analysis costs, residue decline studies have several advantages over values at harvest (the taking of samples at the time of harvesting) in that they provide an opportunity of assessing the residue behaviour over a period of time, and from the dissipation curve obtained in this way it is possible to make a relatively reliable estimate of residues at the time of harvesting (e.g., by identifying outliers and/or the important influencing factors, such as relative decrease in residues as a result of plant growth and the effects of the weather (temperature, precipitation)). In addition, residue decline studies also make possible to monitor initial deposits.

From the above it will be clear that residue decline studies are particularly appropriate and necessary in cases where a pre-harvest interval has to be determined, or where the possibility cannot be ruled out that various different pre-harvest intervals may be considered. Especially in these cases the last sampling time need not to coincide with the PHI. Where PHIs of up to 3 days are foreseen, residue at harvest studies with sampling at 0 and 3 days are sufficient. At a PHI of 4 to 7 days, decline studies can be shortened to 3 sampling points. Only in a few specific circumstances (especially systemic substances which are taken up by roots) it may be necessary to take samples beyond the proposed PHI.

If a plant protection product is used several times during the growing season of a crop, it is recommended, that the first sample should be taken immediately prior to the final application; this makes it possible to ascertain the influence of the previous applications on the level of residues.

Under certain circumstances (e.g., in the case of applications of a plant protection product in cereals prior to flowering), owing to the fact that the sample material is not comparable (green matter, ears, grain/straw) it is sufficient to carry out trials consisting of less than five sampling times (e.g. three sampling times).

Experience has also shown that in some circumstances the knowledge gained from about 2 - 3 value-at-harvest results from different trials may be comparable with that gained from a single residue decline study.

As already stated, in a normal residue decline study samples are taken, following treatment, from a single treated plot at appropriate intervals right up to harvesting. Alternatively, it is possible to carry out so-called 'reverse residue decline studies', and this is especially recommended where the pre-harvest interval may range over a relatively long period of time. In a reverse residue decline study, the product is applied to neighbouring plots at intervals corresponding to the possible treatment period prior to harvesting, and samples are taken from all the plots at the same time, at harvesting. For an explanation of 'reverse residue decline studies', see Figure 2.

6 Comparable residue behaviour in different crops

6.1 Basic requirements (number and type of trials)

6.1.1 Prerequisites

Before discussing residue behaviour some prerequisites have to be fulfilled. Firstly

- It is essential to know the metabolism, uptake, distribution, and expression of residues in plants of the active substance in question. It is also desirable to know the mode of action to help explain the possible behaviour of the active substance in plants.

If this is not known, then nothing can be stated about the possibility of extrapolation in advance.

Extrapolation of residue data for different crops presumes that the following are comparable:

- conditions of use with regard to the amount of active substance applied, the time of application, the number of applications, and the interval between applications,
- application methods,
- formulation used, and
- climatic conditions.

The applicant must substantiate with documentary evidence that all variables including Good Agricultural Practice (GAP) are comparable.

In all cases, all the available facts must be considered by an experienced expert in order to make the evaluation.

6.1.2 Number of trials

The precise number of trials required is difficult to determine in advance of a preliminary evaluation of the trial results. Minimum data requirements only apply where comparability can be established between production areas e.g. concerning climate, methods and growing seasons of production etc. Assuming all other variables are comparable, a minimum of eight trials representative of the proposed growing area are required for major crops. For minor and very minor crops four trials representative of the proposed growing area are normally required.

As stated in section 2.6, when the residues of an active substance are foreseen to be under the LOD and at least 2 residue trials confirm this then no further trials are normally necessary.

For the list of 'major crops' see Table 1.

The following criteria are used for classifying a crop or a product as major in a zone of the European Union:

- Daily intake contribution > 0.125 g/kg bw/day (mean daily consumption over the population) in GEMS Food Cluster Diet applicable to the concerned zone and relevant cultivation area (> 20 000 ha) and/or production (> 400 000 tonnes per year) in the zone

or

- Cultivation area > 20 000 ha and Production > 400 000 tonnes per year

For the selection of major crops for the World zone (for import tolerances) the following criterion is used:

- Daily intake contribution > 0.125 g/kg bw/day (mean daily consumption over the population) in at least one of the 4 GEMS Food Cluster Diets or the crop is major in one of the EU residue zones .

These criteria are used equivalent for distribution of crops or products as being major or minor.

Based on those criteria the following crops have become "major" in revision 9 of this guidance document:

Northern Europe	Southern Europe	World
Cherries	Plums	Kiwi
Beetroot	Kiwi	Pineapple
Pepper	Courgettes	Beetroot
Watermelons	Watermelons	Courgettes
Sunflower seed	Cauliflowers	Watermelons
Soya bean	Peas without pods	
	Rape seed	

On the contrary, a number of crops have acquired the status of minor crops:

Northern Europe	Southern Europe	World
Brussels sprouts	Table olives	Table olives
Hops	Cucumber	Hops

6.1.3 'Very minor crops'

In some cases the dietary intake contribution and/or the cultivation area of a crop or a product is very small. In this case certain simplifications should be introduced.

The following criteria are used for classifying a crop or a product as 'very minor' in the European Community:

- daily dietary intake contribution < 1.5 g (i.e. 1.5 g mean daily consumption over the population for a 60 kg person) and/or
- cultivation area < 600 ha (less than 0.0035 % of the total cultivation area)¹

These criteria are used for classifying crops or products as being very minor with a preference on the dietary intake contribution meaning that a higher dietary intake contribution will exclude a crop or a product automatically from the classification as being very minor.

For the list of 'very minor crops' see Table 2. It should be noted that the classification of "very minor crops" is not yet complete and the content of the table may be modified in the future as the work on classification progresses.

Due to the fact that the importance of a crop will change with time as the use of the product will change within a given economic or social/dietary habit context, Table 1 and Table 2 should be reviewed from time to time, e. g. every 10 years.

6.2 Recommended extrapolations

As stated in section 6.1.2, a minimum of eight trials are required for extrapolation, except when otherwise stated in the extrapolation tables (tables 3 to 6) and the applicant must substantiate with documentary evidence that all variables including good agricultural practice (GAP) are comparable. When extrapolating within a minor crop group, four trials are required when extrapolating to another minor crop and a minimum of eight trials is required when extrapolating to the whole group.

¹ Cultivation area is given on the basis of a German proposal; it may be changed for the European regions

Using the available data and experience, and taking worst case conditions into account, the conditions for extrapolation of residue behaviour of plant protection products in different cultures can be defined by a set of requirements. In routine practice, the basic question concerns the timing of the application of the plant protection product to the commodity.

In practice, four situations can be envisaged. These are:

1. Last application after the consumable part of the crop has formed,
2. Last application before the consumable part of the crop has formed,
3. Seed treatments, and
4. Post-harvest uses.

The accompanying extrapolation tables for these four situations (Tables 3-6) are for guidance only but will, in general, be applicable to most active substances. However, there may be occasions where other information/data demonstrate that this is not always necessarily the case. Therefore, when applying these extrapolations, full consideration must be given to the properties of the active substance.

The main property of substances that might influence consideration of extrapolation is whether they fall into one of the two following categories (it has been recognised however that there are substances that display behaviour intermediate between these two categories):

- non-systemic active substances i.e. the active substance and/or relevant metabolites are not transported in the plant.
- systemic active substances i.e. the active substance and/or relevant metabolites are transported in the plant.

Such considerations would be made taking into account the timing of application or the direction of use of the active substance.

6.2.1 Last application after the consumable part of the crop has formed

In this case extrapolation can normally be proposed based on the assumption that morphology determines the residue behaviour of the different crops. There is unlikely to be much difference between systemic and non-systemic substances in such a case.

If the active substance is not applied directly to edible parts of plants and if a transport to edible part of plants is unlikely to occur one can differentiate two cases where contamination might occur: soil-directed application of the active substance or plant-directed application of the active substance.

Case 1: Application is directed to the soil, edible parts of plants grow above the ground

Application to the soil means direct application to the soil, application to the soil with incorporation, and application with shield. When the edible parts of the plants are growing above the soil surface, and it is unlikely that the active substance is transported to the edible parts of plants, residues in these plant parts can only occur by spray drift. In this case results are necessary to demonstrate the correctness of the assumptions made, to show that residues are below the limit of determination.

Case 2: Application is directed to the plant, edible parts of plants grow underground

When the edible parts of the plants are growing under or close by the soil surface and it is unlikely that the active substance is transported to edible parts of plants, then residues in these plant parts only can occur by dropping down of the spray solution e.g. when there are cracks in the soil or where a portion of the edible part is exposed at the surface. In this case results are necessary to demonstrate the correctness of the assumptions made, to show that residues are at the limit of determination.

The possible extrapolations are given in Table 3.

6.2.2 Last application before the consumable part of the crop has formed

For non-systemic active substances, when the plant product to be harvested is not yet formed at the time of the last application, then this use is not usually relevant (for the evaluation of residue behaviour) and therefore represents a non-residue situation. Normally no residue trials would be necessary if the situation was adequately documented and scientifically justified.

Exceptions may occur:

1. The possibility of contamination of the harvested crop needs to be considered, and if necessary residue field trial data may need to be generated.
2. If products for animal feed may be harvested before the regular harvest of the crop for human consumption. These exemptions could be defined as follows: on the basis of the feed intake it is proposed to conduct 4 trials each on rape forage and on (sugar or fodder)-beet leaves and tops and 8 trials on cereal forage and straw.

For systemic active substances, it is much more difficult to make recommendations due to the complex nature of the problem. Nevertheless data on metabolism and distribution of the active substance and the method of application of the plant protection product may help in solving the problem.

It might well be that this represents a non-residue situation but residue trials on representative crops are necessary to demonstrate the correctness of the assumptions made, to show that residues are below the limit of determination, and to show the residue situation in products used for animal feed before forming edible parts for human consumption.

The possible extrapolations are given in Table 4. These extrapolations should apply to both systemic and non-systemic active substances with the proviso that consideration needs to be given to metabolism data for each substance for which extrapolations are being proposed.

6.2.3 Seed dressings

Seed dressing is normally only relevant in the case of systemic active substances. When a non-systemic active substance is applied to seeds, no residues should occur in plants or plant products and therefore normally no residue trials are necessary. When a systemic active substance is applied to seeds this might be considered to be non-relevant in the sense that the levels of residues in the harvested product would probably be below the limit of determination (see 2.6) but this would need to be demonstrated. In this case data may not be needed for all crops. If studies for 3 major crops representative of the crop groups treated, e.g. cereals, oilseeds and vegetables, show no detectable residues then no further studies are necessary for the other crops or groups of crops. The trials should preferably be carried out on crops with a short vegetation period. If, however, contrary to expectations relevant detectable residues should be found, results must be obtained on all potential crops.

The possible extrapolations are given in Table 5.

6.2.4 Post-harvest treatments

In the case of post-harvest treatments there exists a broad range of different uses which could not easily be summarized. In the case of post-harvest uses, not only plant products, but also processed (including dried) products, are treated.

It should be noted here that if active substances are shown to be stable and if it can be demonstrated that the plant protection product could be distributed uniformly no residue trials may be necessary since in such a case the application rate determine the residue.

The possible extrapolations are given in Table 6.

6.3 Inference of group tolerances

Inference of group tolerances is carried out in three steps:

1. Collection of residue data for the relevant representative crops of the group.
2. Testing of the results for comparability according to the procedure described under 2.2
3. Decision
 - 1st case: comparability given
 - calculation of group tolerance on the basis of all the available data
 - 2nd case: no comparability.
 - setting of different maximum residue limits for the individual crops; no setting of a group tolerance at this stage
 - studies of further crops if necessary (i.e. if GAP exists for that crops)

Group tolerances will normally only be discussed if Good Agricultural Practice (GAP) for the group-crops is comparable.

6.4 Deviations for very minor crops

For the groups of crops "wild berries", "fresh herbs", "wild mushrooms", and "spices" and also for "tea-like products" and "medicinal herbs and drugs" for which the group as a whole is considered to be very minor the following deviations from the previously-mentioned rules should be made:

- In deviation from the rule (Annex II, point 6.3, and Annex III, point 8.2, of Directive 91/414/EEC as amended by Directive 96/68/EC) that in certain circumstances residue decline studies are necessary it is proposed to ask always for samples at harvest for all residue studies on crops from the above mentioned groups of crops. Different portions to be analyzed due to different uses should be taken into account, e.g. leaves of dill used as fresh herbs and seeds of dill used as spices.
- In deviation from point 2.1 of this Appendix D that MRLs are set as high as necessary on the basis of application as provided for authorization and as low as possible for reasons of preventive health care, it is proposed to set always a group tolerance on the basis of the worst case conditions even if not all crops are treated under the same conditions. But never under any circumstances the MRLs derived should be higher than can be justified on toxicological reasons.
- In deviation from point 6.3 of this guideline it is proposed to set in individual cases a group tolerance also if there is already a GAP only for one crop or for a few number of crops of the mentioned groups of crops.

The groups of "tea-like products" and "medicinal herbs and drugs" are only included for the evaluation of residue behaviour. This should not anticipate any MRL setting. The need for their presence is derived from the concept of mutual recognition of authorizations (Article 10 of Directive 91/414/EEC).

7 **References**

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Jean-Claude Malet and Marie-Lucie Troprés, Propositions for an European work method for minor crops based on their geographical distribution, their status and the major existing pests (November 2007).

Figure 1: **Comparison of 'normal' and 'reverse' residue decline studies**

Normal test series

one trial plot	samples taken on five occasions
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ie., 1 trial plot; treatment and sampling carried out on the single plot at intervals of time, eg., 0, 7, 14, 21 and 28 days after last treatment.

Reverse residue decline studies

1st trial plot	e. g. treatment 28 days before harvest
2nd trial plot	treatment 21 days before harvest
3rd trial plot	treatment 14 days before harvest
4th trial plot	treatment 7 days before harvest
5th trial plot	treatment immediately before harvest

ie. - 5 neighbouring trial plots
 - treatment at intervals of time (28, 21, 14, 7, 0 days before harvest on the appropriate plot)
 - Sampling on all plots on the same day at the time of harvesting.

Table 1: List of major crops.

Crops not mentioned in Table 1 or Table 2 are assumed to be minor crops.

1. Group of crops	2. Major crops	3. Region		
		N	S	W
1. Fruits				
(i) Citrus fruit	Grapefruits Oranges Lemons Mandarins		X X X X	X X X X
(ii) Tree nuts				
(iii) Pome fruits	Apples Pears	X X	X X	X X
(iv) Stone fruits	Apricots Cherries Peaches Plums	X X	X X X	X X X
(v) Berries and small fruits				
(a) Table and wine grapes	Table grapes Wine grapes		X X	X X
(b) Strawberries	Strawberries	X	X	X
(c) Cane fruit (other than wild)				
(d) Other small fruits and berries				
(vi) Miscellaneous fruit				
(a) Miscellaneous fruit - edible peel				
(b) Miscellaneous fruit - inedible peel, small	Kiwi		X	X
(c) Miscellaneous fruit - inedible peel, large	Bananas Pineapples			X X
2. Vegetables				
(i) Root and tuber vegetables				
(a) Potatoes	Potatoes	X	X	X
(b) Tropical root and tuber vegetables				
(c) Other root and tuber vegetables except sugar beet	Beetroot Carrots	X X	 X	X X
(ii) Bulb vegetables	Onions	X	X	X
(iii) Fruiting vegetables				
(a) Solanacea	Tomatoes Peppers	X X	X X	X X
(b) Cucurbits - edible peel	Cucumbers Courgettes	X	 X	X X
(c) Cucurbits - inedible peel	Melons Watermelons	 X	X X	X X
(d) Sweet corn				
(iv) Brassica vegetables				
(a) Flowering brassica	Cauliflower	X	X	X
(b) Head brassica	Head cabbage	X		X
(c) Leafy brassica				
(d) Kohlrabi				
(v) Leaf vegetables and fresh herbs				
(a) Lettuce and other salad plants including Brassicacea	Lettuce	X	X	X
(b) Spinach and similar (leaves)				
(c) Vine leaves				
(d) Water cress				
(e) Witloof				

1. Group of crops	2. Major crops	3. Region		
		N	S	W
(f) Herbs				
(vi) Legume vegetables (fresh)	Beans (with pods)	X	X	X
	Peas (without pods)	X	X	X
(vii) Stem vegetables (fresh)	Leek	X		X
(viii) Fungi				
(ix) Seaweeds				
3. Pulses, dry	Beans	X	X	X
	Peas	X	X	X
4. Oil seeds and oilfruits				
(i) Oilseeds	Peanut			X
	Sunflower seed	X	X	X
	Rapeseed	X	X	X
	Soya bean	X	X	X
	Cotton seed		X	X
(ii) Oilfruits	Olives for oil production		X	X
	Palm nuts			X
5. Cereals	Barley	X	X	X
	Maize	X	X	X
	Oats	X	X	X
	Rice		X	X
	Rye	X	X	X
	Sorghum		X	X
	Wheat	X	X	X
6. Tea, coffee, herbal infusions and cocoa				
(i) Tea (<i>Camellia sinensis</i>)	Tea (<i>Camellia sinensis</i>)			X
(ii) Coffee beans	Coffee beans			X
(iii) Herbal infusions				
(iv) Cocoa (fermented beans)	Cocoa			X
(v) Carob (st john's bread)				
7. Hops				
8. Spices				
9 Sugar plants	Sugar beet	X	X	X
12. Crops exclusively used for animal feed	Fodder beet	X		X

Explanation:

N = Northern Europe

S = Southern Europe

W = World

X = Major Crop

Table 2: List of very minor crops. (obsolete)

1. Group of crops	2. Very minor crops	3. Region		
		N	S	W
1. Fruits				
(i) Citrus fruit				
(ii) Tree nuts	Hazelnuts	X		
(iii) Pome fruit	Black chokeberry	X		
	Medlar	X		
	Quinces	X		
	Mountain ash	X		
(iv) Stone fruit	Cornel cherries	X		
(v) Berries and small fruit				
(a) Grapes				
(b) Strawberries				
(c) Cane fruit (other than wild)	Blackberries	X		
	Mulberries	X		
(d) Other small fruits and berries (other than wild)	Azarole	X		
	Blueberries	X		
	Buckthorn	X		
	Cranberries	X		
	Elderberries	X		
	Gooseberries	X		
	Rose hips	X		
	Service berries	X		
(e) Wild berries and wild fruit	All crops	X		
(vi) Miscellaneous fruit				
(a) Miscellaneous fruit - edible peel				
(b) Miscellaneous fruit - inedible peel	Kiwis	X		
2. Vegetables				
(i) Root and tuber vegetables [exc. Tropical root vegetables]	Beetroot	X		
	Chicory roots	X		
	Horse radish	X		
	Jerusalem artichoke	X		
	Parsley roots	X		
	Swedes	X		
	(ii) Bulb vegetables	Garlic	X	
(iii) Fruiting vegetables				
(a) Solanacea				
(b) Cucurbits - edible peel	Patisson (Marrow)	X		
	Zucchini	X		
(c) Cucurbits - inedible peel				
(d) Sweet corn				
(iv) Brassica vegetables				
(a) Flowering brassicas				
(b) Head brassicas				
(c) Leafy brassicas				
(d) Kohlrabi				
(v) Leaf vegetables and fresh herbs				
(a) Lettuce and similar	Cress	X		
	Dandalion leaves	X		
	Scarole	X		
(b) Spinach and similar	(Swiss) Chard	X		
	Leaves of beetroots	X		
	Purslane	X		
(c) Water cress	Water cress	X		
(d) Witloof	Witloof	X		
(e) Herbs	all crops	X		

1. Group of crops	2. Very minor crops	3. Region		
		N	S	W
(vi) Legume vegetables (fresh)				
(vii) Stem vegetables	Artichokes Rhubarb	X X		
(viii) Fungi				
(a) Mushrooms (other than wild)	Oyster mushroom Ring mushroom (<i>Stropharia rugosoannulata</i>)	X X		
(b) Wild mushrooms	all crops	X		
3. Pulses				
4. Oil seeds	Hemp seed Gold of pleasure Linseed Mustard seed Pumpkin seed Safflower Soya beans	X X X X X X X		
5. Potato group				
(i) Early and ware potatoes				
(ii) Tropical root vegetables				
6. Tea				
7. Hops				
8. Miscellaneous				
9. Spices				
(a) Use of roots	all crops	X		
(b) Use of leaves/flowers	all crops	X		
(c) Use of fruits/seeds	all crops	X		
10. Cereals	Millet	X		
11. Tealike products				
(a) Use of roots	all crops	X		
(b) Use of leaves/flowers	all crops	X		
(c) Use of fruits/seeds	all crops	X		
12. Medicinal herbs and drugs				
(a) Use of roots	all crops	X		
(b) Use of leaves/flowers	all crops	X		
(c) Use of fruits/seeds	all crops	X		

Explanation:

N = Northern Europe) according to point 4

S = Southern Europe)

W = World

X = Very minor crop²

² At the moment on the basis of a German proposal.

Table 3: Extrapolation of active substances used up to or close to harvest (last application after the consumable part of the crop has started to form). *Column 3 Extrapolation: in bold changes introduced with rev. 9 of 24.03.2011*

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
1. FRUIT; NUTS				
(i) Citrus fruit	Lemons Mandarins (including clementines and similar hybrids) Oranges Grapefruits	Oranges or oranges and grapefruits (8 trials, with a minimum of four trials on oranges) and mandarins and/or lemons (8 trials)	→	Whole group
(ii) Tree nuts (shelled or unshelled)		Any two representative (“closed nuts” and “open nuts” e.g. cashew nuts, pistachios) with the exception of coconuts (6 trials)	→	Whole group
		Any “closed nut” with the exception of coconuts (4 trials)	→	“Closed nuts”
(iii) Pome fruit	Apples Pears	Apple or pears (with a minimum of 4 apples trials)	→	Whole group
(iv) Stone fruit	Apricots Peaches (including nectarines and similar hybrids)	Peaches or apricots (with a minimum of 4 trials on apricot)	→	Nectarines, apricots, peaches
	Cherries	Sweet cherries	↔	Sour cherries
	Plums			
(v) Berries and small fruit				
(a) Table and wine grapes	Table grapes Wine grapes	Table grapes	↔	Wine grapes
(b) Strawberries	Strawberries			None
(c) Cane fruit		Raspberries (4 trials)	→	Blackberries

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
		Trials on raspberries alone or on two representatives (6trials)	→	Whole group
(d) Other small fruits and berries		6 trials on currants (black, red or white) alone or 6 trials on two representatives (must also include a minimum of 4 trials on currants) or on grape and currant (must also include a minimum of 4 trials on currants)	→	Whole group
(vi) Miscellaneous fruit				
(a) Edible peel		Table olives Cherries	↔ →	Olives for oil production Surinam cherries
(b) Inedible peel, small	Kiwi			None
(c) Inedible peel, large	Bananas Pineapples			None
2. VEGETABLES				
(i) Root and tuber vegetables	Carrots (Sugar beet) Early and ware potatoes Beetroot	Carrots, potatoes and sugar beet (8 trials each)	→	Whole root and tuber vegetable group
(a) Potatoes		Potatoes	→	Tropical root vegetables
(b) Tropical root and tuber vegetables		Potatoes	→	Tropical root vegetables
		Sweet potatoes and/or yam	→	Tropical root vegetables
(c) Other root and tuber vegetables except sugar beet		Carrots Carrots	→ →	Whole “other root and tuber vegetables except sugar beet” Roots of herbal infusions and spices

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
		Swedes	↔	Turnips
		Swede or turnip	→	Celeriac, horseradish
		Sugar beet	→	Beetroot, swedes, turnips
(ii) Bulb vegetables	Bulb onions	Bulb onions	→	Garlic, shallots
		Spring/salad onions	→	Welsh onions, chives
		Leek	↔	Spring/salad onions
(iii) Fruiting vegetables				
(a) Solanacea	Tomatoes Peppers	Tomatoes	→	Aubergines
		Sweet peppers	→	Peppers
(b) Cucurbits -edible peel	Cucumbers Courgettes	Cucumbers or courgettes (if courgettes alone 8 trials)	→	Whole group
(c) Cucurbits -inedible peel	Melons Watermelons	Melons	→	Whole group
(d) Sweet corn		Immature maize	→	Sweet corn
(iv) Brassica vegetables				
(a) Flowering brassica	Cauliflower	Cauliflower and broccoli (4 trials each)	→	Whole group
(b) Head brassica	Head cabbage			None
(c) Leafy brassicas		Kale	→	Whole group
(d) Kohlrabi				None
(v) Leaf vegetables and fresh herbs				
(a) Lettuce and other salad plants including Brassicacea	Lettuce	Lettuce (8 trials on open leaf varieties¹)	→	Whole lettuce and other salad plants group

¹ Applicants to specify in MRLs applications whether the variety is open leaf

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(b) Spinach and similar (leaves)		Spinach	→	Whole spinach and similar (leaves) group
		Spinach	→	Rocket, red mustard, leaves & sprouts of brassica sp
		Lettuce (8 trials, with a minimum of 4 trials on open leaf varieties ¹)	→	Whole spinach and similar (leaves) group
(c) Vine leaves (grape leaves)				None
(d) Water cress				None
(e) Witloof				None
(f) Herbs		Any crop of the herbs group (except bay leaves, sage, rosemary and thyme) , spinach or lettuce (open leaf varieties¹)	→	Whole group. Other extrapolations can be considered on a case by case basis.
(vi) Legume vegetables (fresh)	Beans, green with pods Peas, green without pods	Beans, green with pods	↔	Peas with pods (e.g. mange tout). Consideration should be given to possible contamination from mechanical harvesting
(vii) Stem vegetables	Leeks	Spring/salad onions	↔	Leek
		Celery	→	Fennel (bulb), cardoon, rhubarb
(viii) Fungi		Any single cultivated mushroom species	→	All cultivated mushrooms
		Any single wild mushroom species	→	All wild mushrooms
(ix) Sea weeds				None

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
3. PULSES, DRY	Beans, dry (including broad beans) Peas, dry (including chick peas)	Beans and/or peas	→	Whole group. Consideration should be given to possible contamination from mechanical harvesting
4. OILSEEDS AND OILFRUITS				
(i) Oilseeds	Cotton seed Peanut Rapeseed Soya bean Sunflower	Rapeseed 4 trials each of any 2 of the following: Cotton seed Rapeseed Soyabean Sunflower ²	→ →	Linseed, mustard seed, poppy seed, gold of pleasure Minor “unlisted” oilseeds (i.e. all oil seeds except those listed in column “2. Major crops”)
(ii) Oilfruits	Olives for oil production Palm kernels	Olives for oil production	↔	Tables olives
5. CEREALS	Barley Maize Oats Rice Rye Sorghum Wheat	Barley Wheat Maize Immature wheat	→ → → →	Treatments applied during inflorescence emergence and post-inflorescence emergence: Oats Rye Millet, sorghum Immature spelt
6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA				
(i) Tea	Tea			None
(ii) Coffee beans	Coffee beans			None
(iii) Herbal Infusions				
(a) Flowers		Any single cultivated crop	→	Leaves/ flowers herbal infusions and spices

² Under practical conditions this would be for the North rapeseed and sunflower and for the South two of the following: rapeseed, cotton seed, soybean, sunflower.

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(b) Leaves		Any single cultivated crop	→	Leaves/flowers of herbal infusions and spices
(c) Roots		Any single cultivated crop	→	Roots of herbal infusions and spices
		Carrots or any root and tuber vegetable	→	Roots of herbal infusions and spices
(d) Other herbal infusions				None
(iv) Cocoa	Cocoa beans			None
(v) Carob (St Johns bread)				None
7.HOPS				None
8. SPICES				
(i) Seeds		Any single cultivated crop below: Anise seeds Caraway seeds Celery seeds Coriander seeds Cumin seed Dill seeds Fennel seeds Fenugreek seeds Lovage seeds Nasturtium seeds garden	→	Whole group
(ii) Fruits and berries		Any single cultivated crop	→	Fruits and berries of herbal infusions and spices
(iii) Bark				None
(iv) Roots or rhizome		Any single cultivated crop	→	Roots of herbal infusions and spices
		Carrots or any root and tuber vegetable	→	Roots of herbal infusions and spices

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
9. SUGAR PLANTS	Sugar beet	Carrot or sugar beet	→	Chicory roots

Explanation: → = 'one way' extrapolation; reverse extrapolation **not** permitted; ↔ = reverse extrapolation possible.

Table 4: Extrapolation of active substances used early in the growing season (last application before consumable parts of the crop have started to form). For some crops this is not applicable since the edible part of the crop is always present. In such cases, extrapolations based on Table 3 are more appropriate. *Column 3 Extrapolation: in bold changes introduced with rev. .9 of 24.03.2011.*

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
1. FRUIT; NUTS				
(i) Citrus fruit	Lemons Mandarins (including clementines and similar hybrids) Oranges Grapefruits	Apples (4 trials) and either citrus fruit or stone fruit (4 trials)	→	Citrus fruit, tree nuts, pome fruit and stone fruit groups
(ii) Tree nuts (shelled or unshelled)				See citrus fruit
(iii) Pome fruit	Apples Pears			See citrus fruit
(iv) Stone fruit	Apricots Peaches (including nectarines and similar hybrids) Cherries Plums			See citrus fruit
(v) Berries and small fruit		4 trials on strawberries and 4 trials on either grapes, blackcurrants or other berries	→	Whole group of berries and small fruit
(a) Table and wine grapes	Table grapes Wine grapes			
(b) Strawberries				
(c) Cane fruit				
(d) Other small fruits and berries				
(vi) Miscellaneous fruit		Any three representatives (4 trials of each) including bananas and table olives	→	Whole group
(a) Edible peel				
(b) Inedible peel, small	Kiwi			
(c) Inedible peel, large	Bananas Pineapple			
2. VEGETABLES				
(i) Root and tuber vegetables				
(a) Potatoes	Early and ware potatoes			Not applicable (see table 3)

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(b) Tropical root and tuber vegetables				Not applicable (see table 3)
(c) Other root and tuber vegetables except sugar beet	Carrots Beetroots			Not applicable (see table 3)
(ii) Bulb vegetables	Bulb onions			Not applicable (see table 3)
(iii) Fruiting vegetables				
(a) Solanacea	Tomatoes Peppers	Tomatoes & cucumbers (8 trials of each)	→	Whole group except sweetcorn
(b) Cucurbits -edible peel	Cucumbers Courgettes			
(c) Cucurbits -inedible peel	Melons Watermelons			
(d) Sweet corn		Immature maize	→	Sweet corn
(e) Other fruiting vegetables				
(iv) Brassica vegetables		Head cabbage and cauliflower (8 trials on each)	→	Whole flowering brassica and head brassica groups
(a) Flowering brassica	Cauliflower			
(b) Head brassica	Head cabbage			
(c) Leafy brassicas		Lettuce (pre-emergence)	→	leafy brassicas, spinach (pre-emergence)
(d) Kohlrabi				
(v) Leaf vegetables and fresh herbs				
(a) Lettuce and other salad plants including Brassicacea	Lettuce	Lettuce (pre-emergence)	→	Whole group of lettuce and other salad plants including Brassicacea
(b) Spinach and similar (leaves)		Lettuce (pre-emergence)	→	leafy brassicas, spinach (pre-emergence)
(c) Vine leaves (grape leaves)				None
(d) Water cress				None
(e) Witloof				None
(f) Herbs				None
(vi) Legume vegetables (fresh)	Beans, green with pods Peas, green without pods	Beans, green with pods or peas green with pods	→	Whole group
(vii) Stem vegetables	Leeks	Celery (pre-emergence)	→	Not applicable (see table 3)
(viii) Fungi		Any single species	→	Whole group
3. PULSES, DRY	Beans, dry (including broad beans) Peas, dry (including chick	Beans, green with pods or peas green with pods	→	Whole group

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
	peas)			
4. OILSEEDS AND OILFRUITS				
(i) Oilseeds	Cotton seed Peanut Rapeseed Soya bean Sunflower	8 trials of any 1 of the following: Cotton seed Rapeseed Soya bean Sunflower Rapeseed	→ →	Whole oilseeds group (except peanuts) Not applicable (see table 3)
(ii) Oilfruits	Olives for oil production Palm kernels			Not applicable (see table 3)
5. CEREALS	Barley Maize Oats Rice Rye Sorghum Wheat	8 trials of any one of the following: Barley Oats Rye Triticale Wheat Maize Immature wheat	→ → →	The remaining four crops Millet, Sorghum Immature spelt
6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA				
(i) Tea	Tea			None
(ii) Coffee beans	Coffee beans			None
(iii) Herbal Infusions				
(a) Flowers		Any single cultivated crop	→	Not applicable (see table 3)
(b) Leaves				Not applicable (see table 3)
(c) Roots				Not applicable (see table 3)
(d) Other herbal infusions				
(iv) Cocoa	Cocoa beans			None
(v) Carob (St Johns bread)				None
7.HOPS				None
8. SPICES				
(i) Seeds		Any single cultivated crop	→	Fruits/seeds of herbal infusions and spices
(ii) fruits and berries		Any single cultivated crop	→	Fruits/seeds of herbal infusions and spices
(iii) Bark				None
(iv) Roots or rhizome				Not applicable (see table 3)

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
9. SUGAR PLANTS	Sugar beet	maize (whole plant fresh) could be considered only for herbicides.	→	Sugar cane

Explanation: → = 'one way' extrapolation; reverse extrapolation **not** permitted; ↔ = reverse extrapolation possible.

Table 5: Seed treatments (where applicable, upon evaluation of metabolism data). If studies for 3 major crops representative of the crop groups treated, e.g. cereals, oilseeds and vegetables show no detectable residues then no further studies are necessary for the other crops or groups of crops.

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
1. FRUIT; NUTS				
(i) Citrus fruit	Lemons Mandarins (including clementines and similar hybrids) Oranges			Not applicable
(ii) Tree nuts (shelled or unshelled)				Not applicable
(iii) Pome fruit	Apples Pears			Not applicable
(iv) Stone fruit	Apricots Peaches (including nectarines and similar hybrids) Cherries Plums			Not applicable
(v) Berries and small fruit				Not applicable
(a) Table and wine grapes	Table grapes Wine grapes			Not applicable
(b) Strawberries				Not applicable
(c) Cane fruit				Not applicable
(d) Other small fruits and berries				Not applicable
(vi) Miscellaneous fruit				Not applicable
(a) Edible peel	Table olives			Not applicable
(b) Inedible peel, small				Not applicable
(c) Inedible peel, large	Bananas			Not applicable
2. VEGETABLES				
(i) Root and tuber vegetables		4 trials for carrot and 4 trials from any other major crop within the other root & tuber vegetable, bulb vegetable and stem vegetable groups	→	All crops in the following groups: Other root and tuber vegetables Bulb vegetables Stem vegetables Sugar beet (Note: this extrapolation excludes potatoes and tropical root & tuber vegetables)

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(a) Potatoes	Early and ware potatoes			None
(b) Tropical root and tuber vegetables				None
(c) Other root and tuber vegetables except sugar beet	Carrots			
(ii) Bulb vegetables	Bulb onions	Bulb onions	→	Bulb vegetables
		Bulb onions and leeks (4 trials each)	→	Bulb and stem vegetables
(iii) Fruiting vegetables		Tomatoes and cucumbers (4 trials each)	→	Fruiting vegetable group (except sweet corn)
(a) Solanacea	Tomatoes			
	Peppers			
(b) Cucurbits -edible peel	Cucumbers			
(c) Cucurbits - inedible peel	Melons			
(d) Sweet corn		Immature maize	→	Sweet corn
(e) Other fruiting vegetables				
(iv) Brassica vegetables		4 trials from any major brassica crop and 4 trials from any major crop in the lettuce and other salad plants crop group	→	All brassicas and all leafy vegetables and herbs except witloof, vine leaves and water cress
(a) Flowering brassica	Cauliflower			
(b) Head brassica	Brussels sprouts Head cabbage			
(c) Leafy brassicas				
(d) Kohlrabi				
(v) Leaf vegetables and fresh herbs		4 trials from any major brassica crop and 4 trials from any major crop in the lettuce and other salad plants crop group	→	All brassicas and all leafy vegetables and herbs except witloof vine leaves and water cress
(a) Lettuce and other salad plants including Brassicacea	Lettuce			
(b) Spinach and similar (leaves)				
(c) Vine leaves (grape leaves)				
(d) Water cress				
(e) Witloof				
(f) Herbs				

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(vi) Legume vegetables (fresh)	Beans, green with pods Peas, green without pods			See pulses
(vii) Stem vegetables	Leeks	Leeks	→	Stem vegetables
(viii) Fungi				None
3. PULSES, DRY	Beans, dry (including broad beans) Peas, dry (including chick peas)	Beans and or peas	→	Whole Legume vegetables (fresh) and pulses groups
4. OILSEEDS AND OILFRUITS				
(i) Oilseeds	Cotton seed Peanut Rapeseed Soya bean Sunflower	8 trials on any crop (except peanuts)	→	Whole group (except peanuts)
		8 trials on any crop (except peanuts) plus 4 trials on peanuts	→	Whole group
(ii) Oilfruits	Olives for oil production Palm kernels			
5. CEREALS	Barley Maize Oats Rice Rye Sorghum Wheat	4 trials on wheat and 4 trials on maize	→	Whole group
		Immature wheat	→	Immature spelt
		4 trials on any of wheat, barley, oats and rye	→	Wheat, barley, oats, rye
6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA				
(i) Tea	Tea			Not applicable
(ii) Coffee beans	Coffee beans			Not applicable
(iii) Herbal Infusions				
(a) Flowers		Any single cultivated crop (4 trials)	→	Flowers/leaves of herbal infusions and spices
(b) Leaves		Any single cultivated crop (4 trials)	→	Flowers/leaves of herbal infusions and spices
(c) Roots		Any single cultivated crop (4 trials)	→	Roots of herbal infusions and spices
		Carrots	→	Roots of herbal infusions and spices
(d) Other herbal infusions				

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(iv) Cocoa	Cocoa beans			Not applicable
(v) Carob (St Johns bread)				Not applicable
7.HOPS				Not applicable
8. SPICES				
(i) Seeds		Any single cultivated crop (4 trials)	→	Fruits/seeds herbal infusions and spices
(ii) fruits and berries		Any single cultivated crop (4 trials)	→	Fruits/seeds of herbal infusions and spices
(iii) Bark				
(iv) Roots or rhizome		Any single cultivated crop (4 trials)	→	Roots of herbal infusions and spices
9. SUGAR PLANTS	Sugar beet	4 trials for carrot and 4 trials from any other major crop within the other root & tuber vegetable, bulb vegetable and stem vegetable groups	→	All crops in the following groups: Other root and tuber vegetables Bulb vegetables Stem vegetables Sugar beet
	Sugar cane			

Explanation: → = 'one way' extrapolation; reverse extrapolation **not** permitted; ↔ = reverse extrapolation possible.

Table 6: Post-harvest treatments

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
1. FRUIT; NUTS				
(i) Citrus fruit	Lemons Mandarins (including clementines and similar hybrids) Oranges	Oranges and mandarins (4 trials each)	→	Whole group
(ii) Tree nuts (shelled or unshelled)		4 trials on hazelnuts or brazil nuts or cashew nuts or pistachio nuts	→	Whole group
(iii) Pome fruit	Apples Pears	Apples (4 trials)	→	Whole group
(iv) Stone fruit	Apricots Peaches (including nectarines and similar hybrids) Cherries Plums	Plums	↔	Apricots (on the basis of 4 trials)
(v) Berries and small fruit				None
(a) Table and wine grapes	Table grapes Wine grapes			None
(b) Strawberries				None
(c) Cane fruit				None
(d) Other small fruits and berries				None
(vi) Miscellaneous fruit				None
(a) Edible peel	Table olives			None
(b) Inedible peel, small		Kiwis and/or passion fruit (4 trials)	→	Guava, kiwi, litchi, longan, mangostan, passion fruit, American persimmon (kaki) ³ , prickly pear, rambutan, sapodilla, star apple
(c) Inedible peel, large	Bananas	Banana (4 trials) Avocados and/or mangos (4 trials)	→ →	Banana, plantain, dwarf banana Avocado, breadfruit, chreimoya, custard apple, durian, jackfruit, mango, papaya, pineapple, pomegranate, soursop

³ Some varieties may have edible peel.

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
2. VEGETABLES				
(i) Root and tuber vegetables (a) Potatoes	Potatoes	Potatoes	→	Potatoes and tropical root and tuber vegetables
(b) Tropical root and tuber vegetables		Potatoes	→	Potatoes and tropical root and tuber vegetables
		Sweet potatoes and/or yam	→	Tropical root vegetables
(c) Other root and tuber vegetables except sugar beet	Carrots	Carrots	→	Whole group of other root and tuber vegetables
(ii) Bulb vegetables	Bulb onions	Bulb onions	→	Whole group
(iii) Fruiting vegetables				
(a) Solanacea	Tomatoes			Not applicable
	Peppers			
(b) Cucurbits -edible peel	Cucumbers			Not applicable
(c) Cucurbits - inedible peel	Melons	Melon (4 trials)	→	Whole group
(d) Sweet corn				None
(e) Other fruiting vegetables				
(iv) Brassica vegetables				
(a) Flowering brassica	Cauliflower			None
(b) Head brassica	Brussels sprouts			None
	Head cabbage			
(c) Leafy brassicas				None
(d) Kohlrabi				None
(v) Leaf vegetables and fresh herbs				None
(a) Lettuce and other salad plants including Brassicacea	Lettuce			None
(b) Spinach and similar (leaves)				None
(c) Vine leaves (grape leaves)				None
(d) Water cress				None
(e) Witloof				None
(f) Herbs				None
(vi) Legume vegetables (fresh)	Beans, green with pods Peas, green without pods			Not applicable

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
(vii) Stem vegetables	Leeks			None
(viii) Fungi				None
<i>Dried vegetables</i>				<i>See herbal infusions</i>
3. PULSES, DRY	Beans, dry (including broad beans) Peas, dry (including chick peas)	Beans and/or peas	→	Whole group
4. OILSEEDS AND OILFRUITS				
(i) Oilseeds	Cotton seed Peanut Rapeseed Soya bean Sunflower	Soya beans and peanuts (4 trials each) 4 trials on any of rapeseed, cotton seed, sunflower	→ →	Whole group Rapeseed, cotton seed, sunflower.
(ii) Oilfruits	Olives for oil production Palm kernels			None
5. CEREALS	Barley Maize Oats Rice Rye Sorghum Triticale Wheat	Wheat Wheat and maize or sorghum Any of wheat, barley, oats, rye and triticale (4 trials total)	→ → →	Barley, oats, rye, triticale Whole group Wheat, barley, oats, rye and triticale
	<i>Cereal products</i>	<i>Flour</i> <i>Raw bran</i> <i>Coarse meal</i> <i>(4 trials each)</i>	→	<i>Cereal products</i>
6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA				
(i) Tea	Tea			None
(ii) Coffee beans	Coffee beans	Cocoa beans	→	Coffee beans
(iii) Herbal Infusions				
(a) Flowers		Any crop (4 trials)	→	Leaves/flowers of herbal infusions and spices
(b) Leaves		Any crop (4 trials)	→	Leaves/flowers of herbal infusions and

1. GROUPS OF CROPS	2. MAJOR CROPS	3. EXTRAPOLATION		
		A) CROPS	B) DIRECTION	C) POSSIBLE EXTRAPOLATION
				spices
(c) Roots		Any crop (4 trials)	→	Roots of herbal infusions and spices
(d) Other herbal infusions				
(iv) Cocoa	Cocoa beans	Cocoa beans	→	Coffee beans
(v) Carob (St Johns bread)				None
7.HOPS				See herbal infusions
8. SPICES				
(i) Seeds		Any crop (4 trials)	→	Fruits/seeds of tea like products, herbal infusions, spices and dried vegetables
(ii) fruits and berries		Any crop (4 trials)	→	Fruits/seeds of tea like products, herbal infusions, spices and dried vegetables
(iii) Bark				
(iv) Roots or rhizome		Any crop (4 trials)	→	Roots of tea like products, herbal infusions, spices and dried vegetables
(v) Buds		Any crop (4 trials)	→	Leaves/flowers of tea like products, herbal infusions, spices and dried vegetables
(vi) Flower stigma		Any crop (4 trials)	→	Leaves/flowers of tea like products, herbal infusions, spices and dried vegetables
(vii) Aril		Any crop (4 trials)	→	Fruits/seeds of tea like products, herbal infusions, spices and dried vegetables
9. SUGAR PLANTS	Sugar beet Sugar cane	Carrots	→	Whole group of other root and tuber vegetables, sugar beet

Explanation: → = 'one way' extrapolation; reverse extrapolation **not** permitted; ↔ = reverse extrapolation possible.

Annex 1: Division of France into two regions

Division of France into two regions
(described in Section 4)



Annex 1 (continued): **Regions and Departments of France**

NORTHERN FRANCE			SOUTHERN FRANCE			
Regions		Departments	Regions		Departments	
Ile-de-France	75	(Ville-de-)Paris	Pitou-Charentes	16	Charente	
	77	Seine-et-Marne		17	Charente-Maritime	
	78	Yvelines		79	Deux-Sèvres	
	91	Essonne		86	Vienne	
	Champagne-Ardenne	92	Haute-de-Seines	Aquitaine	24	Dordogne
		93	Seine-Saint-Denise		33	Gironde
		94	Val-de-Marne		40	Landes
		95	Val-d'Oise		47	Lot-et-Garonne
08		Ardennes	64		Pyrénées-Atlantiques	
Picardie	10	Aube	Midi-Pyrénées	09	Ariège	
	51	Marne		12	Aveyron	
	52	Haute-Marne		31	Haute-Garonne	
Haute-Normandie	02	Aisne		32	Gers	
	60	Oise		46	Lot	
	80	Somme		65	Hauts-Pyrénées	
Centre	27	Eure		81	Tarn	
	76	Seine-Maritime		82	Tarn-et-Garonne	
Basse-Normandie	18	Cher	Rhône-Alpes	01	Ain	
	28	Eure-et-Loire		07	Ardèche	
	36	Indre		26	Drôme	
	37	Indre-et-Loire		38	Isère	
	41	Loir-et-Cher		42	Loire	
Bourgogne	45	Loiret		69	Rhône	
	14	Calvados		73	Savoie	
	50	Manche		74	Haute-Savoie	
Nord-Pas-de-Calais	61	Orne		Languedoc-Roussillon	11	Aude
	21	Côte-d'Or			30	Gard
	58	Nièvre	34		Hérault	
	71	Saône-et-Loire	48		Lozère	
Lorraine	89	Yonne	66		Pyrénées-Orientales	
	59	Nord	Provence-Alpes-Côte-d'Azur	04	Alpes-de-Haute-Provence	
62	Pas-de-Calais	05		Hautes-Alpes		
Alsace	54	Meurthe-et-Moselle		06	Alpes-Maritimes	
	55	Meuse		13	Bouches-de-Rhône	
	57	Moselle		83	Var	
	88	Vosges	84	Vaucluse		
Franche Comte	67	Bas-Rhin	Corse	2A	Corse-du-Sud	
	68	Haut-Rhin		2B	Haute-Corse	
Pays de la Loire	25	Doubs				
	39	Jura				
	70	Haute-Saône				
	90	Territoire de Belfort				
Bretagne	44	Loire-Atlantique				
	49	Maine-et-Loire				
	53	Mayenne				
	72	Sarthe				
	85	Vendée				
Limousin	22	Côtes-du-Nord				
	29	Finistère				
	35	Ille-et-Vilaine				
	56	Morbihan				
	19	Corrèze				

NORTHERN FRANCE			SOUTHERN FRANCE		
Regions		Departments	Regions		Departments
	23	Creuse			
	87	Haute-Vienne			
Auvergne	03	Allier			
	15	Cantal			
	43	Haute-Loire			
	63	Puy-de-Dôme			

Annex 1 (continued): **Distribution of crops in France⁴**

Code number	Groups and examples of individual products to which the MRLs apply (a)	Zone (N, S, N+S, NorS, W)*
100000	1. FRUIT FRESH OR FROZEN; NUTS	
100000	1. FRUIT FRESH OR FROZEN; NUTS	
110000	(i) Citrus fruit	S
120000	(ii) Tree nuts (shelled or unshelled)	
120010	Almonds	S
120020	Brazil nuts	W
120030	Cashew nuts	W
120040	Chestnuts	S
120050	Coconuts	W
120060	Hazelnuts (Filbert)	S
120070	Macadamia	W
120080	Pecans	W
120090	Pine nuts	S
120100	Pistachios	W
120110	Walnuts	S
120990	Others	
130000	(iii) Pome fruit	
130010	Apples (Crab apple)	N+S
130020	Pears (Oriental pear)	N+S
130030	Quinces	N or S
130040	Medlar	N or S
130050	Loquat	N or S
130990	Others	
140000	(iv) Stone fruit	S
150000	(v) Berries & small fruit	
151000	(a) Table and wine grapes	
151010	Table grapes	S
151020	Wine grapes	N+S
152000	(b) Strawberries	S
153000	(c) Cane fruit	N or S
154000	(d) Other small fruit & berries	
154010	Blueberries (Bilberries cowberries (red bilberries))	N or S
154020	Cranberries	N or S
154030	Currants (red, black and white)	N
154040	Gooseberries (Including hybrids with other ribes species)	N or S
154050	Rose hips	N or S
154060	Mulberries (arbutus berry)	N or S

⁴ This table has been made on the basis of data of area and production (Agreste data base). Crops present at 80% or more (area and production) in one zone are reattached to this zone. For important crops near this threshold and/or crops with potentially different GAPs between North and South residue trials from the two zones (N+S) may be required according to minor and major crops requirements (e.g. wine grapes - area : 83% South, production : 81% South).

Minor crops and/or very minor crops without data on area and production and/or not clearly reattached to one zone are identified as N or S. in this case, residue data from North and/or South are admissible.

Crops not present on metropolitan territory (e.g in DOM) are identified as W (world).

Code number	Groups and examples of individual products to which the MRLs apply (a)	Zone (N, S, N+S, NorS, W)*
154070	Azarole (mediteranean medlar)	N or S
154080	Elderberries (Black chokeberry (appleberry), mountain ash, azarole, buckthorn (sea shallowthorn), hawthorn, service berries, and other treeberries)	N or S
154990	Others	
160000	(vi) Miscellaneous fruit	
161000	(a) Edible peel	
161010	Dates	W
161020	Figs	S
161030	Table olives	S
161040	Kumquats (Marumi kumquats, nagami kumquats)	W
161050	Carambola (Bilimbi)	W
161060	Persimmon	W
161070	Jambolan (java plum) (Java apple (water apple), pomerac, rose apple, Brazilean cherry (grumichama), Surinam cherry)	W
161990	Others	
162000	(b) Inedible peel, small	
162010	Kiwi	S
162020	Lychee (Litchi) (Pulasan, rambutan (hairy litchi))	W
162030	Passion fruit	W
162040	Prickly pear (cactus fruit)	W
162050	Star apple	W
162060	American persimmon (Virginia kaki) (Black sapote, white sapote, green sapote, canistel (yellow sapote), and mammey sapote)	W
162990	Others	
163000	(c) Inedible peel, large	W
200000	2. VEGETABLES FRESH OR FROZEN	
210000	(i) Root and tuber vegetables	
211000	(a) Potatoes	N+S
212000	(b) Tropical root and tuber vegetables	W
213000	(c) Other root and tuber vegetables except sugar beet	
213010	Beetroot	N
213020	Carrots	N+S
213030	Celeriac	N
213040	Horseradish	N
213050	Jerusalem artichokes	N or S
213060	Parsnips	N or S
213070	Parsley root	N or S
213080	Radishes (Black radish, Japanese radish, small radish and similar varieties)	N+S
213090	Salsify (Scorzonera, Spanish salsify (Spanish oysterplant))	N
213100	Swedes	N
213110	Turnips	N
213990	Others	
220000	(ii) Bulb vegetables	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Zone (N, S, N+S, NorS, W)*
220010	Garlic	N or S
220020	Onions (Silverskin onions)	N
220030	Shallots	N
220040	Spring onions (Welsh onion and similar varieties)	N or S
220990	Others	
230000	(iii) Fruiting vegetables	
231000	(a) Solanacea	
231010	Tomatoes (Cherry tomatoes,)	S
231020	Peppers (Chilli peppers)	S
231030	Aubergines (egg plants) (Pepino)	S
231040	Okra, lady's fingers	W
231990	Others	
232000	(b) Cucurbits - edible peel	
232010	Cucumbers	N or S
232020	Gherkins	N or S
232030	Courgettes (Summer squash, marrow (patisson))	S
232990	Others	
233000	(c) Cucurbits-inedible peel	S
234000	(d) Sweet corn	S
239000	(e) Other fruiting vegetables	
240000	(iv) Brassica vegetables	
241000	(a) Flowering brassica	N
242000	(b) Head brassica	N
243000	(c) Leafy brassica	N or S
244000	(d) Kohlrabi	N
250000	(v) Leaf vegetables & fresh herbs	
251000	(a) Lettuce and other salad plants including Brassicacea	
251010	Lamb's lettuce (Italian cornsalad)	N
251020	Lettuce (Head lettuce, lollo rosso (cutting lettuce), iceberg lettuce, romaine (cos) lettuce)	N+S
251030	Scarole (broad-leaf endive) (Wild chicory, red-leaved chicory, radicchio, curld leave endive, sugar loaf)	N+S
251040	Cress (essais nord en franceou vm?)	N or S
251050	Land cress	N or S
251060	Rocket, Rucola (Wild rocket)	N or S
251070	Red mustard	N or S
251080	Leaves and sprouts of Brassica spp (Mizuna)	N or S
251990	Others	
252000	(b) Spinach & similar (leaves)	
252010	Spinach (New Zealand spinach, turnip greens (turnip tops))	N
252020	Purslane (Winter purslane (miner's lettuce), garden purslane, common purslane, sorrel, glassworth)	N or S
252030	Beet leaves (chard) (Leaves of beetroot)	N or S
252990	Others	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Zone (N, S, N+S, NorS, W)*
253000	(c) Vine leaves (grape leaves)	S or W
254000	(d) Water cress	N or S
255000	(e) Witloof	N
256000	(f) Herbs	N or S
260000	(vi) Legume vegetables (fresh)	
260010	Beans (with pods) (Green bean (french beans, snap beans), scarlet runner bean, slicing bean, yardlong beans)	N+S
260020	Beans (without pods) (Broad beans, Flageolet, jack bean, lima bean, cowpea)	N
260030	Peas (with pods) (Mangetout (sugar peas))	N+S
260040	Peas (without pods) (Garden pea, green pea, chickpea)	N
260050	Lentils	N
260990	Others	
270000	(vii) Stem vegetables (fresh)	
270010	Asparagus	N+S
270020	Cardoons	N or S
270030	Celery	N or S
270040	Fennel	N or S
270050	Globe artichokes	N
270060	Leek	N+S
270070	Rhubarb	N or S
270080	Bamboo shoots	W
270090	Palm hearts	W
270990	Others	
280000	(viii) Fungi	
280010	Cultivated (Common mushroom, Oyster mushroom, Shi-take)	N or S
280020	Wild (Chanterelle, Truffle, Morel ,)	
280990	Others	
290000	(ix). Sea weeds	
300000	3. PULSES, DRY	N
400000	4. OILSEEDS AND OILFRUITS	
401000	(i) Oilseeds	
401010	Linseed	N
401020	Peanuts	S or W
401030	Poppy seed	N
401040	Sesame seed	S or W
401050	Sunflower seed	N+S
401060	Rape seed (Bird rapeseed, turnip rape)	N+S
401070	Soya bean	S
401080	Mustard seed	N
401090	Cotton seed	W
401100	Pumpkin seeds	S
401110	Safflower	S

Code number	Groups and examples of individual products to which the MRLs apply (a)	Zone (N, S, N+S, NorS, W)*
401120	Borage	N or S
401130	Gold of pleasure	N or S
401140	Hempseed	N or S
401150	Castor bean	N or S
401990	Others	
402000	(ii) Oilfruits	
402010	Olives for oil production	S
402020	Palm nuts (palmoil kernels)	W
402030	Palmfruit	W
402040	Kapok	W
402990	Others	
500000	5. CEREALS	
500010	Barley	N+S
500020	Buckwheat	N
500030	Maize	N+S
500040	Millet (Foxtail millet, teff)	N
500050	Oats	N+S
500060	Rice	S
500070	Rye	N
500080	Sorghum	S
500090	Wheat (Spelt Triticale)	N+S
500990	Others	
600000	6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA	
610000	(i) Tea (dried leaves and stalks, fermented or otherwise of <i>Camellia sinensis</i>)	W
620000	(ii) Coffee beans	W
630000	(iii) Herbal infusions (dried)	N or S or W
700000	7. HOPS (dried) , including hop pellets and unconcentrated powder	N
800000	8. SPICES	N or S or W
900000	9. SUGAR PLANTS	
900010	Sugar beet (root)	N
900020	Sugar cane	W
900030	Chicory roots	N
900990	Others	

(*) zones for crops distribution :

N : crops essentially cultivated in Northern France

S : crops essentially cultivated in Southern France

N+ S : crops spread throughout the entire territory

N or S : residue data accepted from south and/or north zone, typically for very minor crops

W : crops cultivated outside metropolitan France