

Maximum Residues Limits Regulations and codex crop groups as an incentive tool for minor crops problems



DAFF MINOR CROPS 2018 STAKEHOLDERS WORKSHOP

Maryke Herbst

Directorate: Food Control

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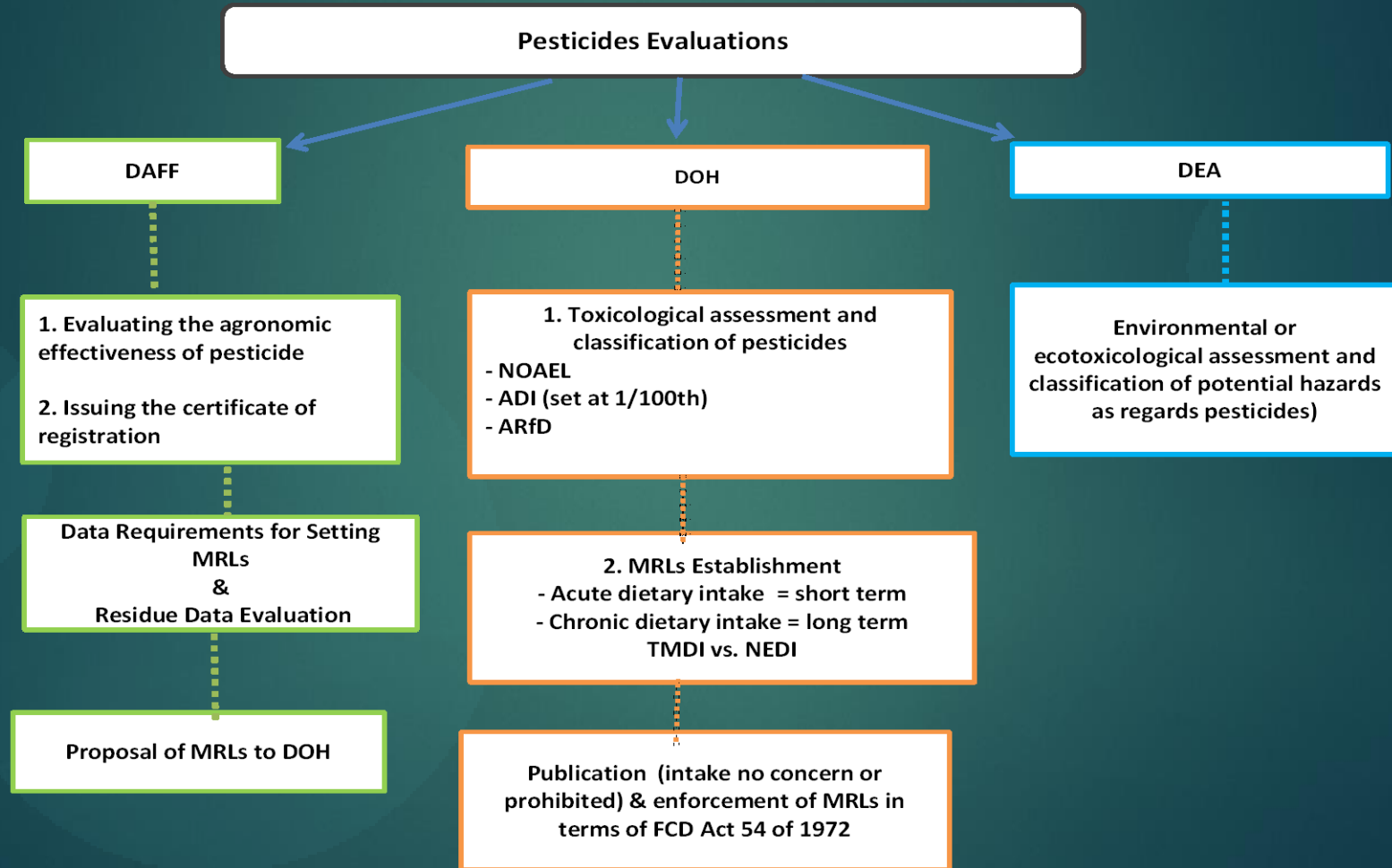
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OUTLINE

- ▶ The Department of Health's role in registration of Pesticides
- ▶ Benefits of a Crop Grouping System
- ▶ Current Status of Crop Grouping in MRL Regulations and Local Considerations
- ▶ The future ?

South African: Pesticide Evaluations



Process of registration of a pesticide/agricultural remedy

Step 1

- An active ingredient (active part of the agricultural remedy) is developed by a chemical company
- The formulation is also developed

Step 2

- The company sends in application to the Dept. of Agriculture, Registrar Act 36 of 1947. Must include:
- Toxicological data for both the active and rest of formulation
 - Human health safety data (feeding trials, inhalation study data, dermal exposure data)
 - Environmental safety data (ecotoxicity)

Process of registration of a pesticide/agricultural remedy (cont)



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Step 3

- The Department of Agriculture sends the dossier to the Dept. of Health, Directorate: Food Control for evaluation of toxicity to humans

Step 4

- The Directorate: Food Control looks at aspects of mammalian toxicology (acute, sub-chronic and chronic) to determine level of toxicity mainly via consumption

Process of registration of a pesticide/agricultural remedy (cont)



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Step 5

- After the evaluators provide a recommendation to the Directorate: Food Control the recommendation is sent to the Dept. of Agriculture.

Step 6

- The Dept. of Agriculture consolidates all recommendations from the various Government Departments and registers or rejects the active ingredient

Process of registration of a pesticide/agricultural remedy (cont)

Step 7

- The DoA provides the DoH with proposed maximum residue limits (MRLs) after they receive field trial data from applicants for specific commodities

Step 8

- The Directorate: Food Control conducts exposure assessments of the active ingredient against an acceptable daily intake (ADI) which is determined during the toxicological evaluation

Process of registration of a pesticide/agricultural remedy (cont)

Step
9

- If the MRL does not exceed the ADI, the DoH accepts the MRL and publishes it in Regulations Governing the Maximum Limits for pesticide Residues that may be present in Foodstuffs, No. R. 246 of 1994, as amended
- This Regulation is published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)

Benefits of a Harmonized Crop Classification System



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- ❑ Joint FAO/WHO Meetings on Pesticide Residues (JMPR) and Countries - save time on data review and standardize MRL determination
- ❑ CCPR/CAC - facilitate commodity trade by setting MRLs on harmonized crop groups
- ❑ Growers - have more access to pest control products and increased capacity to export commodities

Benefits of a Harmonized Crop Classification System (cont)

- ❑ Consumers - have better access to safer specialty crop produce
- ❑ Manufacturers - save time and cost on supervised trials based on crop groups & subgroups
- ❑ A harmonized effort today will prevent a duplication of efforts in the future

For residue purposes these 'representative crops' are typically those which are:

- most likely to contain the highest residues
- major in terms of production and/or consumption, and
- similar in morphology, growth habit, pest problems and edible portion to those other commodities within the group.

Groupings to be deleted in Proposed New Regulations

- ▶ Beans
- ▶ Citrus Fruits
- ▶ Cruciferae
- ▶ Cucurbits
- ▶ Peas
- ▶ Peas (Whole)
- ▶ Stone Fruits

Beans

- ▶ Means, in the case of green beans, the bean plus the pod and, in the case of dry beans, the bean without the pod

Leguminous Beans Group



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- ▶ Means beans, broad beans, cow peas, chick peas, garden peas, pigeon peas, and peas (peas or beans means shelled, with pods, whole, unshelled, without pods or dry), unless otherwise stated

Citrus Fruits

- ▶ Means lemons, limes, grapefruit, oranges, mandarins (including clementines and tangerines) and tangelos, unless otherwise stated

Citrus Group



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- ▶ Means lemons, limes, grapefruits or pomelos, oranges, mandarins (including clementines, **satsumas**, **naartjies** and tangerines) and tangelos, unless otherwise stated

Cruciferae

- ▶ Means cabbage, cauliflower, broccoli and Brussels sprouts

Brassica vegetables or cruciferae



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- ▶ Means Brussels sprouts, broccoli, cabbage (including all varieties), kale, kohlrabi, cauliflower, pakchoi and collards, unless otherwise stated

Cucurbits



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- ▶ Means melons, squashes, cucumbers and pumpkins

Cucurbits **group**



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- ▶ Means melons, **musk** melons, **butternuts**, **cantaloupes**, **watermelon**, pumpkins, squashes (including summer and winter squash), patty pans, gourds, **zucchini**, cucumbers and **gherkins**, unless otherwise stated

Peas & Peas (whole)

- ▶ Means peas without the shell
- ▶ Means the unshelled peas

Leguminous Beans Group



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- ▶ Means beans, broad beans, cow peas, chick peas, garden peas, pigeon peas, and peas (peas or beans means shelled, with pods, whole, unshelled, without pods or dry), unless otherwise stated

Stone Fruit

- ▶ Means apricots, cherries, nectarines, peaches, plums and prunes, unless otherwise stated

Stone Fruit

- ▶ Means apricots, **cherries (sweet and sour)**, nectarines, peaches, plums and prunes, unless otherwise stated

Groupings in Proposed New Regulations



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- ▶ Berries Group
- ▶ Brassica Vegetables or Cruciferae
- ▶ Citrus Group
- ▶ Cucurcubits Group
- ▶ Leafy Vegetables
- ▶ Leguminous Beans Group
- ▶ Onion Bulb Group
- ▶ Pepper Group
- ▶ Root and Tuber Vegetables Group
- ▶ Tree Nuts

Groupings Already in Regulations



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- ▶ Cereal Grains
 - ▶ Means wheat, millet, maize, rice, sorghum, barley, oats and rye after threshing
- ▶ Pome Fruits
 - ▶ Apples and pears

Berries Group

- ▶ Means blueberries, blackberries, cranberries, dewberries (including boysenberry and loganberry), gooseberries, raspberries, blackcurrants and currants, unless otherwise stated

Leafy Vegetables

- ▶ Means Chinese spinach, endive, celery, fennel, parsley, rhubarb, Swiss chard, mustard and rape, unless otherwise state

Onion Bulb Group



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- ▶ Means all varieties of bulb onions, spring onions, shallots, chives, garlic and leeks, unless otherwise stated

Pepper Group

- ▶ Means peppers, paprika, chillies, okra, pepino and egg plants, unless otherwise stated

Root and Tuber Vegetables Group



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- ▶ Means artichoke, parsnips, sugar beet, garden beet, beetroot, yams, turnips, sweet potatoes, cassava, garden radish, radishes, horseradish and chicory, unless otherwise stated

Tree Nuts

- ▶ Means almonds, cashews, chestnuts, hazelnuts, macadamia nuts, pecans, pistachio nuts, walnuts, coconuts, Brazil nuts and pine nuts, unless otherwise stated

OUTSTANDING GROUPINGS

- ▶ Tropical & Subtropical Fruit – Edible Peel/Inedible Peel
- ▶ Edible Flowers
- ▶ Spices & Herbs
- ▶ Oilseed
- ▶ Edible Fungi
- ▶ Stalk stem and leave petiole group

RESOLUTIONS : PREPARATORY MEETING FOR CODEX COMMITTEE ON PESTICIDE RESIDUES (CCPR)

- ▶ An advisory group be formed to advise the Department of Health on the Crop groupings as proposed by Codex.
- ▶ Ways be sought to enhance participation in the CCPR activities, including preparatory meetings and feedback meetings, electronic working groups etc.
- ▶ NIOH be approached with a view to investigate a Total Diet Study with possible funding through NRF. The possibility of a Doctorate study in this regard be investigated
- ▶ NIOH approached to advise on the IETD formula currently under discussion at CCPR.
- ▶ The need for MRL's for Edible Flowers be assessed and informal discussions be done to ascertain where best it can be addressed under agenda points for the CCPR meeting. The aim being to propose/join another country with similar interests.

THANK YOU !!!!



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