

Reporting Protocol for Pesticide Residue Trials

Herbicide Trial on Oil Palm

1. Objective : To determine whether residues of a herbicide and its major metabolite(s) (if applicable) are present in various fractions of palm oil after several treatments with the pesticide per season.
2. Product used: State trade name, % w/w concentration of active ingredients and formulation.
3. Location of trial : Preferably more than one location with differing soil conditions
 - state soil characteristics, pH, physical and chemical properties.
4. Age of oil palms: Should be fruiting
5. Field design : Plot size – number of palms per treatment (a minimum of 5 palms per treatment) and how palms are spaced.
Replication within the plot is not necessary if variation is not expected.
6. Treatment:
 - control (no treatment with test pesticide)
 - maximum recommended rate
 - two times maximum recommended rate (expressed as units of active ingredient per unit area)
7. Pesticide :
application
 - Equipment and method of application
 - Date of application
 - Number of applications
 - Interval between applications
 - Stage of crop growth
 - Other pesticides used

Climatic conditions during and after application but preferably during whole period of trial

8. Sampling : Random sampling
Begin with control plot followed by plot with the recommended rate and then the plot with 2x the recommended rate
Dates of sampling
- 0 day (worst case situation when contamination due to drift may occur)
- 7 days, 14 days and 30 days after last treatment

Size of sample – 1 kg of fruitlets from all the palms in each treatment to constitute a sample
9. Treatment of samples: The mesocarp oil is separated from the mesocarp and both the oil and the mesocarp cake are analyzed. The kernel nut is separated and the oil extracted. Both the oil and the kernel cake are analyzed.
10. Method of analysis : Detailed method of sample preparation and method used to analyze the sample (or reference if already submitted previously), with laboratory evidence to support claims on the limits of detection, recovery at various concentrations, reproducibility of recovery and results obtained
11. Results and interpretation: The analytical results of every sample should be clearly tabulated. This part should include the interpretation of the results and the justification for the proposals on MRL and PHI
- Reference : Part 3, FAO Guideline of Producing Residues Data from Supervised Trials, 1990

Insecticide Trial in Cocoa

1. Objective : To determine whether residues of the insecticide and its major metabolite(s) (if applicable) are present in cocoa beans after several treatments with the pesticide per season.
2. Product used: State trade name, % w/w concentration of active ingredients and formulation.
3. Location of trial : Where applicable, preferably more than one location with differing soil conditions
 - state soil characteristics, pH, physical and chemical properties.
4. Age of oil palms: fruiting
5. Field design : Plot size – number of cocoa per treatment (a minimum of 20 trees per treatment) stating how trees are spaced.
Replication within the plot is not necessary if variation is not expected.
6. Treatment:
 - control (no treatment with test pesticide)
 - maximum recommended rate
 - two times maximum recommended rate (expressed as units of active ingredient per unit spray volume)
7. Pesticide : application
 - Equipment and method of application
 - Date of applications
 - Number of applications
 - Interval between applications
 - Stage of crop growth
 - Other pesticides used
 - Climatic conditions during and after application but preferably during whole period of trial

8. Sampling :
- Random sampling
Begin with control plot followed by plot with the recommended rate and then the plot with 2x the recommended rate
- Dates of sampling
- at 0 day
- 3 days, 7 days, 14 days and 30 days after last treatment

Size of sample – sufficient cocoa pods to yield 1 kg of beans after processing to constitute a sample
9. Treatment of samples:
The cocoa pods should be cut open to remove the beans. The cocoa beans should then undergo a process of fermentation and drying following accepted practices before being sent for laboratory analysis.
10. Method of analysis :
Detailed method of sample preparation and method used to analyze the sample (or reference if already submitted previously), with laboratory evidence to support claims on the limits of detection, recovery at various concentrations, reproducibility of recovery and results obtained
11. Results and interpretation:
The analytical results of every sample should be clearly tabulated. This part should include the interpretation of the results and the justification for the proposals on MRL and PHI
- Reference :
Part 3, FAO Guideline of Producing Residues Data from Supervised Trials, 1990