

# CIPAC MT STATUS REPORT

06/12/2009

## MT 194 Adhesion to seeds

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Allocated to DAPF

CIPAC methods published in:

CIPAC

**CIPAC** 51th meeting, June 2007 in Umhlanga Rocks, South Africa

Mr Rodler's presentation was about the German Speaking Group for Pesticide Formulations (DAPF) who had developed a new method for the determination of the adhesion of formulations to treated seeds (the proposed CIPAC MT method (4580/m).

The currently available CIPAC methods involve:

(1) CIPAC MT 83 ('Seed Adhesion test for powders for seed treatment), with MT83.1 for Cereal Seeds, and MT83.2 for Pea seeds.

(2) CIPAC MT 147 ('Retention test for seed treatment powders used on cereal seeds')

Why a new test method? There are not many DS (powders for dry seed treatment) left on market. The vast majority of seed treatment products on market are liquids or applied as slurries: FS, WS, ES LS, SS. Strong adhesion is needed, but poor adhesion is shown for DS and strong adhesion for FS. European registration authorities require 'Seed Adhesion' - *seed retention* - test data, and also for seed treatments for formulations applied as liquids or slurries.

Adhesion deals with an applied "preparation" and therefore adhesion to seeds is property of seeds and the formulation.

DAPF's intention with regard to a new method is to:

1. Issue a "Seed adhesion" test method, which is independent of the formulation type.
2. Issue a test method which is suitable for a fairly wide range of treated seeds.

Since a drop stress test simulates the stress situations of treated seed better than a rotation test, a drop test was preferred over a rotation stress test. Since CIPAC MT 147 was the basic test for the two other seed drop tests (BBA and to a certain extent also the 'Jeffs' test), DAPF decided to use CIPAC MT 147 as the basis for the new version.

The apparatus of the new test method was shown. Treated seeds are poured through a funnel and fall on a slide. When the slide is opened, the seeds fall a further distance onto a sieve, during which loose material separates. After five passes through the apparatus, a seed loading analysis is performed and the retention of the seed treatment on the stressed sample is compared with that of the unstressed sample. Eventually the "adhesion to treated seed" is calculated

Test results obtained with CIPAC MT 147 were compared with those obtained with the new test method. The new method is slightly more stringent. The new test method can be used to determine adhesion to seeds for various formulation types. The test method discriminates between good and bad formulations /formulation types. Results for liquid formulation types are all very good compared to powders for dry seed treatment. However, the results of the new method elaborated so far do not yet allow DAPF to propose a sensible specifications limit. DAPF recommended to propose as provisional CIPAC method.

Decision The MT method for the determination of adhesion of seed treatment formulations to treated seeds (CIPAC/4580) was accepted as **provisional** CIPAC MT method.

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**CIPAC** 52<sup>nd</sup> meeting, June 2008 in Braunschweig

Last year, the method MT194 for the determination of adhesion of seed treatment formulations to treated seeds (CIPAC/4580) was accepted as a provisional CIPAC method.

Mr Hänel proposed to keep it provisional for further clarification like the definition of the scope of the method. It was proposed not to include it in the Handbook M. It can be obtained from the website (pre-published methods), but with the clause that it may change.

Decision: The MT method for the determination of adhesion of seed treatment formulations to treated seeds (CIPAC/4580) remains as **provisional** CIPAC MT method until further clarification. (not published in CIPAC M)

**CIPAC** 53<sup>rd</sup> meeting, June 2009 in Sonsonate/El Salvador

Decision: The MT method for the determination of adhesion of seed treatment formulations to treated seeds (CIPAC/4580) was accepted as a **full** CIPAC MT method and is replacing MT 83 and MT 147