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काष्ठ विज्ञान एवं प्रौद्योगिकी संस्थान  
(भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद)  
पी ओ मल्लेश्वरम, बेंगलोर-560 003

**Institute of Wood Science & Technology**  
(Indian Council of Forestry Research & Education)  
P.O. Malleswaram, Bangalore-560 003

स Test/WBD/2002/2180  
No.To  
M/S Advance Agriresearch Limited,  
Block No. 275B, N.H. No.8,  
Dhamdachi, Valsad,  
Gujarat 396 001. 5.

दिनांक  
Dated, the 21/7/02.

Sir,

Sub: Bio-efficacy evaluation report on Termiguard 20% and Termiguard Super Power 30% - reg.  
Ref: Your letter no.nil dated on 26 Jun 2002.

With reference to the above, this is to inform you that we are in receipt of the Demand draft (No.441133) for rupees 18000/- (rupees eighteen thousand) towards the charges for one year evaluation report of your products, Termiguard 20% and Termiguard Super Power 30%. Further, please find enclosed the Bio-efficacy evaluation reports of Termiguard 20% and Termiguard Super Power 30% for one year test period. The tests were conducted as per standard procedure.

This is for your kind information and necessary action.

Yours faithfully,

(K.Satyanarayana Rao)  
Director

## **BIO-EFFICACY EVALUATION REPORT ON TERMIGUARD 20%**

### **Introduction**

M/s Advance Agriresearch Limited , Valsad, Gujarat has supplied Cashew Nut Shell Liquid formulation, Termiguard 20% for conducting bio-efficacy tests on wood infesting termites. The same was evaluated in this Institute as per the details given below:

### **Materials and methods**

The Cashew Nut Shell Liquid formulation, Termiguard 20% was treated for their efficacy against termites by three methods of application. They are (i) Surface spray, (ii) dipping and (iii) Pressure impregnation. The product was evaluated at the supplied concentration (ready to use formulations).

Three sets (each set has seven stakes) of air-dried rubber wood stakes ( a highly susceptible wood material) of standard sizes were treated with Cashew Nut Shell Liquid formulation. Sets of each seven-rubber stakes were treated with Termiguard 20%. In this the first set was treated by dipping for thirty minutes, the second set by pressure impregnation (set of rubber stakes were subjected to vacuum for 15 minutes followed by pressure impregnation of the solution at 50 pounds/sq. inch for 30 minutes) and the third set was given a surface spray. One set of untreated seven stakes served as control.

The above three sets of treated rubber wood were implanted in the timber test yard along with one set of controls (untreated stakes).

Observations on the residual efficacy of the chemical for all the sets of treatments i.e., (i) Surface spraying with termiguard 20% (2) Dipping with termiguard 20% (3) Pressure impregnation with termiguard 20% and control was taken at bi-monthly intervals. The infestation level, if any, in the treated and control wood material was recorded.

## Results and Discussions:

The cumulative observations of these replicated treatments is given below:

Date of Treatment: 31-05-01

Date of Implantation: 13-06-01

Tested concentration – Ready to use formulation

Table-I showing the **Bioefficacy of Termiguard 20%** against termites in different treatments.

Treatment	Percent of damage in different treatments after implantation					
	2 Months	4 Months	6 Months	8 Months	10 Months	12 Months
Surface spray	0	0	0	0	0	0
Dipping	0	0	0	0	0	0
Pressure Impregnation	0	0	0	0	0	0
Control (untreated stakes)	2.5	4.0	49	60	70	78

From the table-I it is evident that there was no termite infestation in the treatments with Termiguard 20% in all the methods of application during the observation period of 12 months after implantation. However, in untreated wood material there was 2.5% , 4.0%, 24.5%, 60%, 70%, 78 % damages respectively after 2, 4, 6, 8, 10 and 12 months of implantation.

Thus, as per the above experiment rubber wood treated with ready to use formulations of Cashew Nut Shell Liquid, Termiguard 20% is protected from termite attack for one year in field condition.

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HOD, WBD

## **BIO-EFFICACY EVALUATION REPORT ON TERMIGUARD SUPER POWER 30%**

### **Introduction**

M/s Advance Agriresearch Limited , Valsad, Gujarat has supplied Cashew Nut Shell Liquid formulation, Termiguard Super Power 30% for conducting Bio-efficacy tests on wood infesting termites. The same was evaluated in this Institute as per the details given below:

### **Materials and methods**

The Cashew Nut Shell Liquid formulation, Termiguard Super Power 30% was treated for their efficacy against termites by three methods of application. They are (i) Surface spray, (ii) dipping and (iii) Pressure impregnation. The product was evaluated at the supplied concentration (ready to use formulations).

Three sets (each set has seven stakes) of air-dried rubber wood stakes ( a highly susceptible wood material) of standard sizes were treated with Cashew Nut Shell Liquid formulation. Sets of each seven-rubber stakes were treated with Termiguard Super Power 30%. In this the first set was treated by dipping for thirty minutes, the second set by pressure impregnation (set of rubber stakes were subjected to vacuum for 15 minutes followed by pressure impregnation of the solution at 50 pounds/sq. inch for 30 minutes) and the third set was given a surface spray. One set of untreated seven stakes served as control.

The above three sets of treated rubber wood were implanted in the timber test yard along with one set of controls (untreated stakes).

Observations on the residual efficacy of the chemical for all the sets of treatments i.e., (i) Surface spraying with Termiguard Super Power 30% (2) Dipping with Termiguard Super Power 30% (3) Pressure impregnation with Termiguard Super Power 30% and control was taken at bi-monthly intervals. The infestation level, if any, in the treated and control wood material was recorded.

## Results and Discussions:

The cumulative observations of these replicated treatments is given below:

Date of Treatment: 31-05-01

Date of Implantation: 13-06-01

Tested concentration – Ready to use formulation

Table-I showing the **Bio-efficacy of Termiguard 30%** against termites in different treatments.

Treatment	Percent of damage in different treatments after implantation					
	2 Months	4 Months	6 Months	8 Months	10 Months	12 Months
Surface spray	0	0	0	0	0	0
Dipping	0	0	0	0	0	0
Pressure Impregnation	0	0	0	0	0	0
Control (untreated stakes)	2.5	4.0	49	60	70	78

From the table-I it is evident that there was no termite infestation in the treatments with Termiguard 30% in all the methods of application during the observation period of 12 months after implantation. However, in untreated wood material there was 2.5% , 4.0%, 24.5%, 60%, 70%, 78 % damages respectively after 2, 4, 6, 8, 10 and 12 months of implantation.

Thus, as per the above experiment rubber wood treated with ready to use formulations of Cashew Nut Shell Liquid, Termiguard Super Power 30% is protected from termite attack for one year in field condition.

  
HOD, WBD