

Cinnatube Test Report

1. Operation before Dry Cow

1.1: Preparation

- 1.1.1: Pre-dry cows separated to dry cow stall.
- 1.1.2: Drying date controls to 45-60 days before EDD.
- 1.1.3: Gestation test before dry cow.

1.2: Dry Cow Materials

- 1.2.1: Experimental Group: Cinnatube (Marabo)
- 1.2.2: Control Group I: Nafpenzal DC (Merck)
Control Group II: Orbenin EDC (Zoetis)

2. Method

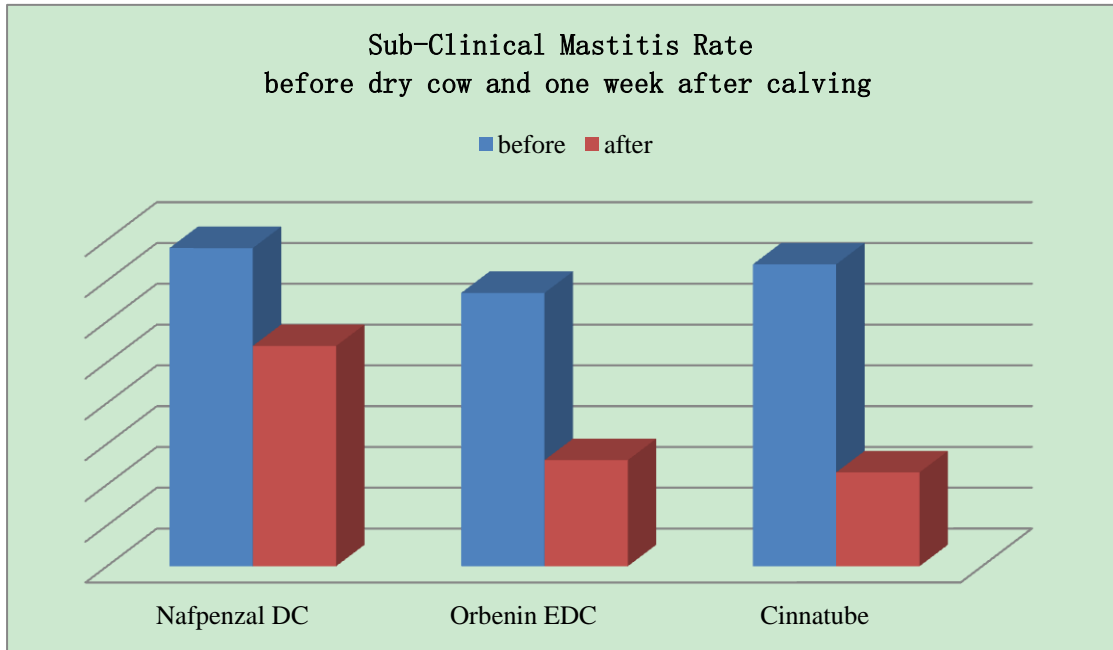
Study design in a free stall dairy herd in Heilongjiang province of China with Holstein cattle:

Group	No. of Cows	No. of Quarters
Control Group I Nafpenzal DC	125	500
Control Group II Orbenin EDC	125	500
Experimental Group Cinnatube	250	1000

3. Results

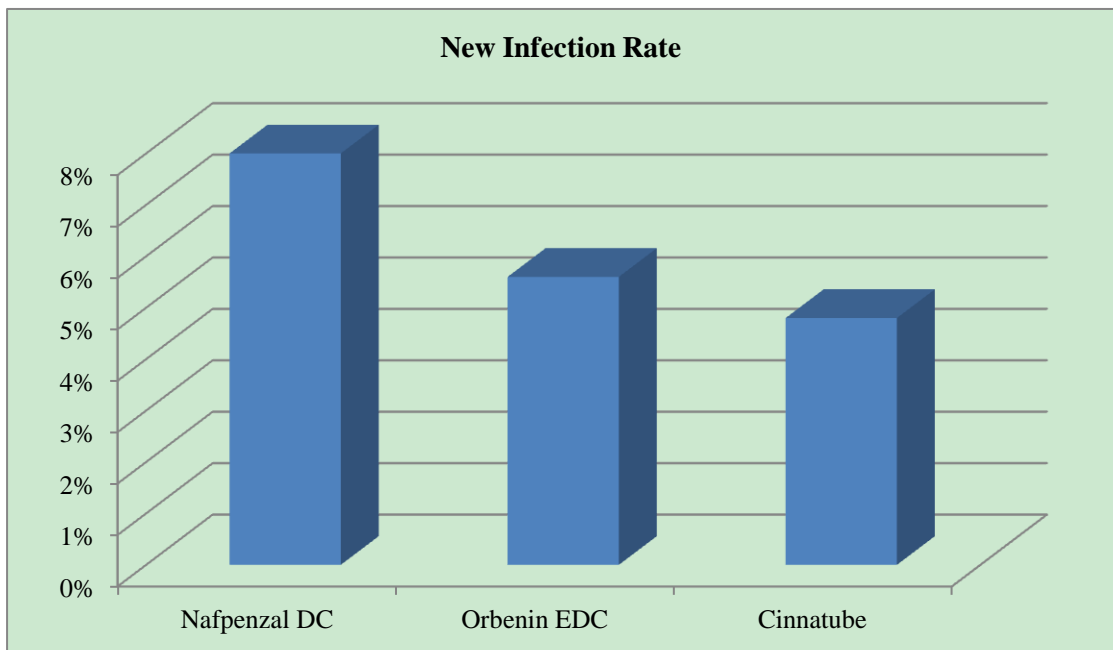
3.1 Mastitis test before dry cow and one week after calving:

Group	No. of Quarters	CMT test before dry cow		CMT test after dry cow	
		Normal	Mastitis	Normal	Mastitis
Control Group I Nafpenzal DC	500	422 (84.40%)	78 (15.60%)	446 (89.20%)	54 (10.80%)
Control Group II Orbenin EDC	500	433 (86.60%)	67 (13.4%)	452 (90.40%)	26 (5.20%)
Experimental Group Cinnatube	1000	852 (85.20%)	148 (14.80%)	954 (95.40%)	46 (4.60%)



3.2 New Mastitis Infections within one month after calving:

Group	Cow No.	New Infection No.	Rate
Control Group I Nafpenzal DC	125	10	8.00%
Control Group II Orbenin EDC	125	7	5.60%
Experimental Group Cinnatube	250	12	4.80%



3.3 Anaphylactic reaction within one week after dry cow:

Group	Cow No.	New Infection No.	Rate
Control Group I Nafpenzal DC	125	5	4.00%
Control Group II Orbenin EDC	125	3	2.40%
Experimental Group Cinnatube	250	0	0.00%

4. Conclusions:

Comparing to conventional therapy, Cinnatube has significant cure rate comparing to Nafpenzal DC, and similar cure rate to Orbenin EDC. And Cinnatube has significant lower new infection rate comparing to Nafpenzal DC, and similar new infection rate comparing to Orbenin EDC.

As an organic proved dry cow sealant with no irritation to the cows, Cinnatube is a workable alternative to conventional antibiotic dry cow therapy.