# CINNATUBE – Dry Cow



**Proven Effective** Single shot Antibiotic Residue Free **Tested Worldwide** No blocked filters No milk withhold Complies with the PMO Exempt from 15r of the PMO





Evaluated and Permitted



The ONLY dry cow tube permitted in **Organic Production** 













A new form of Dry Cow Therapy with 20 years of research to back it up.



Achieves its primary purpose of preventing mastitis in the dry period by mimicking the cow's natural defence until involution complete.



Formulated with essential plant based extracts., including Tea Tree Oil.



Helps provides a natural barrier to new infection.

## Why Cinnatube?



Effective and Proven - comparable to using sealant and antibiotic combination.



Antibiotic Residue Free.



Less risk of Trauma.



Tested & Reviewed in US and EU Research.



No blocked filters or hard to remove residues in the milk



No requirement for milk withdrawal or withhold

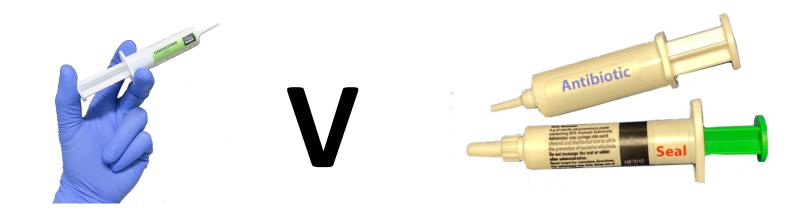


evaluated and permitted – No demerit under the PMO – Exempt from 15r of the PMO



#### **ONE** versus TWO

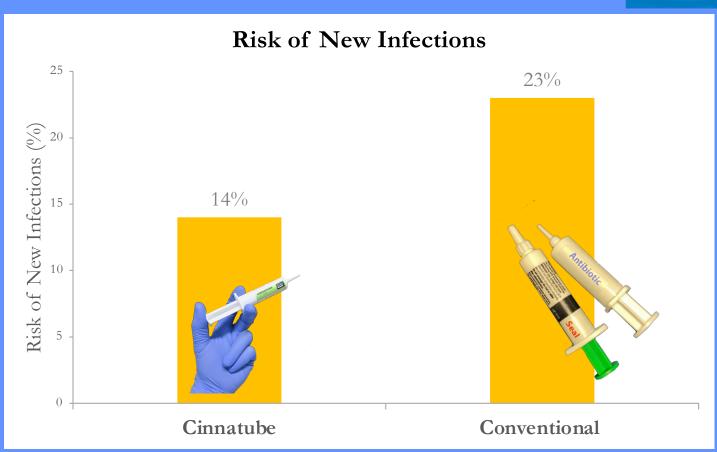
So how does ONE shot of Cinnatube compare to the TWO shot Current Gold Standard?



### USDA/SARE Funded Research

North Carolina State University Published in Journal of Dairy Science





Note - Convention = The Current Gold Standard of Orbeseal and Quartermaster

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North Carolina State University **Published in Journal of Dairy Science** 



- "The risk of new infections for each treatment were 14±7% for CIN[Cinnatube]... 23±20% for CON[Quartermaster with Orbeseal]....Cinnatube appeared to have a protective effect versus new infections compared with no treatment...Cinnatube, was also effective at preventing future infections ....eliminating the risk of antibiotic residues in milk/meat and by lowering the contribution of the dairy industry to the development of antibiotic-resistant bacteria."
- Peer reviewed and published in the prestigious Journal of Dairy Science.
- Note this is no sponsor bias as the research was paid by USDA/SARE

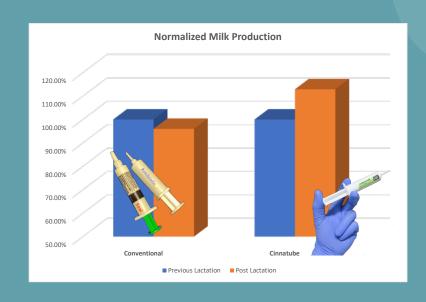
### USDA/SARE Funded Research

North Carolina State University

- The researcher, Dr. Keena Mullen, noted,
- "The difference in milk production from the lactation Cinnatube is a more advantageous dry cow therapy than conventional antibiotic + teat sealant therapy because in this trial, Cinnatube had no negative effect on SCC, had a similar cure rate to conventional therapy, and had a lower new infection rate than conventional therapy.

#### USDA/SARE Funded Research North Carolina State University

- The researcher, Dr. Keena Mullen, noted,
- "....Cinnatube- treated cows had higher milk production in the lactation following treatment whereas conventional-treated cows had lower milk production."

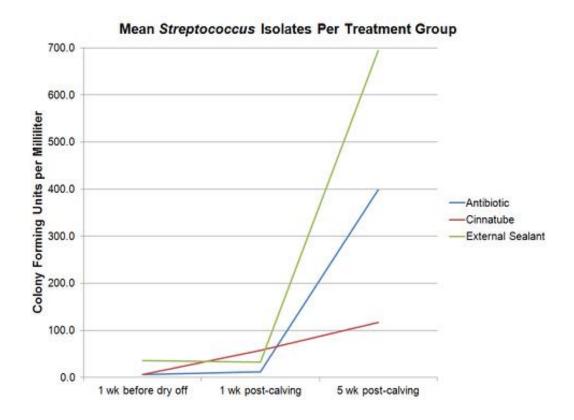


### Meta Analysis of Teat Sealants

- "Use of internal teat sealants for preventing acquisition of new intramammary infections Regarding prevention of IMI acquisition over the dry period, we conclude with a high level of confidence that all ITS (bismuth subnitrate [Orbeseal]- and beeswax-based [Cinnatube]) are efficient at preventing IMI and would reduce risk of IMI incidence by roughly 52% compared with untreated quarters."
- Citation Dufour, Simon, et al. "Non-antimicrobial approaches at drying-off for treating and preventing intramammary infections in dairy cows. Part 1. Meta-analyses of efficacy of using an internal teat sealant without a concomitant antimicrobial treatment." Animal Health Research Reviews 20.1 (2019): 86-97.

#### UK Research Work

Aberdeen University. E.K.S. Green, J.F. Robertson and E.J. Allan Published in Proceedings of the British Mastitis Conference (2003)



Holsteins, treated with an antibiotic (Cephalosporin; Cepravin, Schering- Plough Animal Health), Cinnatube, or an external teat sealant (DryFlex, DeLaval Ltd.).

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