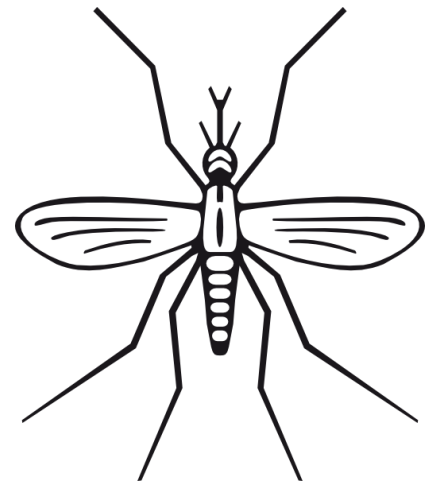
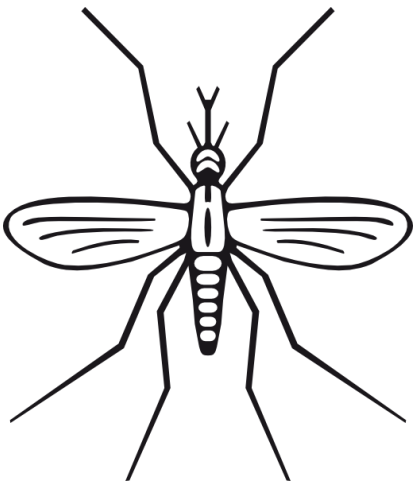


Zooprophylaxis: Using Livestock As Trap Crops For Disease Vectors

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Malaria and *Anopheles* Vectors

- **Malaria**
 - *Anopheles* Mosquitoes
 - Complex Efforts for Control

Symptoms of **Malaria**

Central

- Headache

Systemic

- Fever

Muscular

- Fatigue
- Pain

Back

- Pain

Skin

- Chills
- Sweating

Respiratory

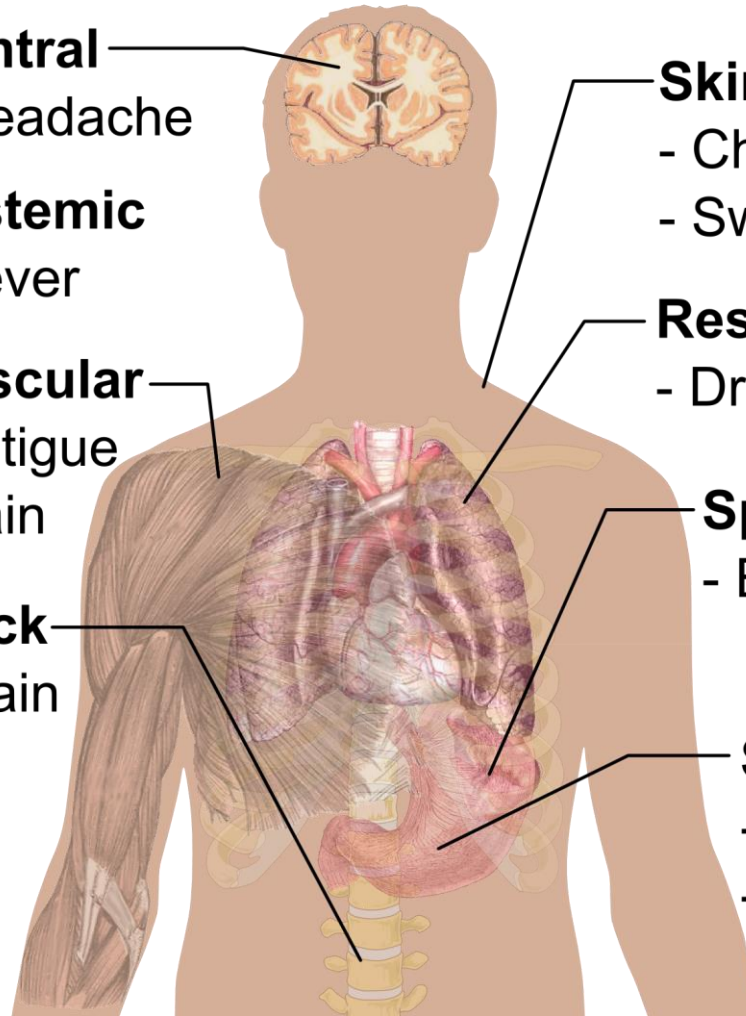
- Dry cough

Spleen

- Enlarge-
ment

Stomach

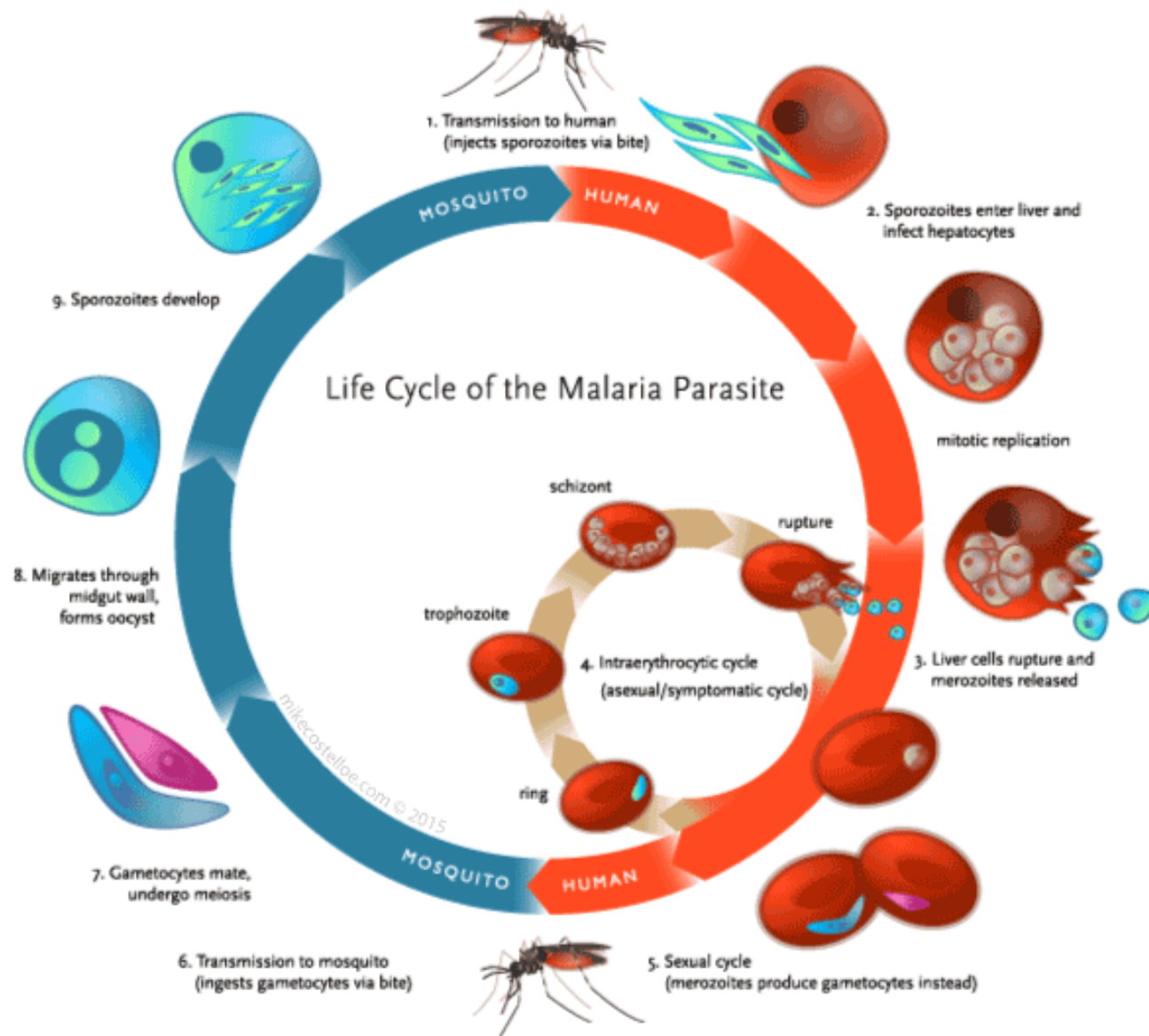
- Nausea
- Vomiting



Species	Major features
<i>P. falciparum</i>	<ul style="list-style-type: none"> • The most important species as it is responsible for 50% of all malaria cases worldwide and nearly all morbidity and mortality from severe malaria • Found in the tropics & sub-tropics
<i>P. vivax</i>	<ul style="list-style-type: none"> • The malaria parasite with the widest geographical distribution • Seen in tropical and sub-tropical areas but rare in Africa • Estimated to cause 43% of all malaria cases in the world
<i>P. ovale</i>	<ul style="list-style-type: none"> • This species is relatively rarely encountered • Primarily seen in tropical Africa, especially, the west coast, but has been reported in South America and Asia
<i>P. malariae</i>	<ul style="list-style-type: none"> • Responsible for only 7% of malaria cases • Occurs mainly in sub-tropical climates

Malaria and *Anopheles* Vectors

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 - ***Anopheles* Mosquitoes**
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Malaria and *Anopheles* Vectors

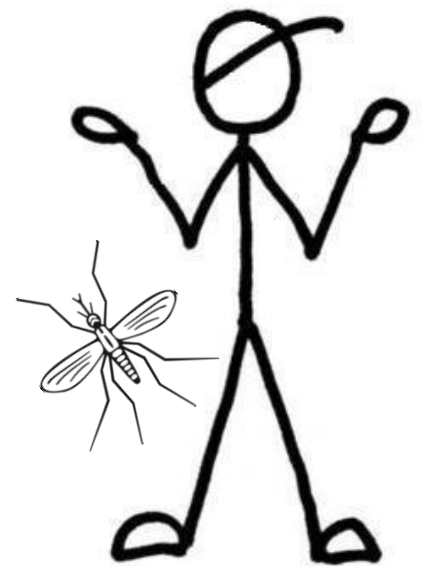
- Malaria
 - *Anopheles* Mosquitoes
- **Complex Efforts for Control**



- Insecticide treated bed nets
- Preventative drugs
- Medical volunteers/ treatment
- Pesticide treatment and
- other mosquito control

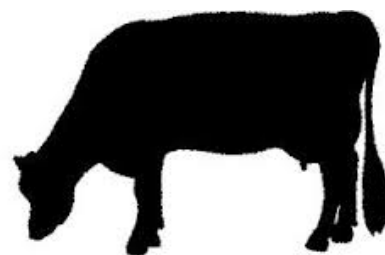
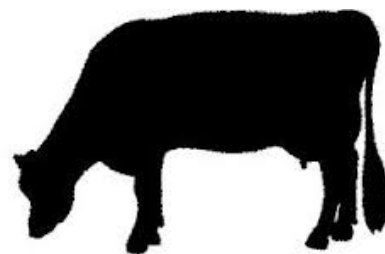
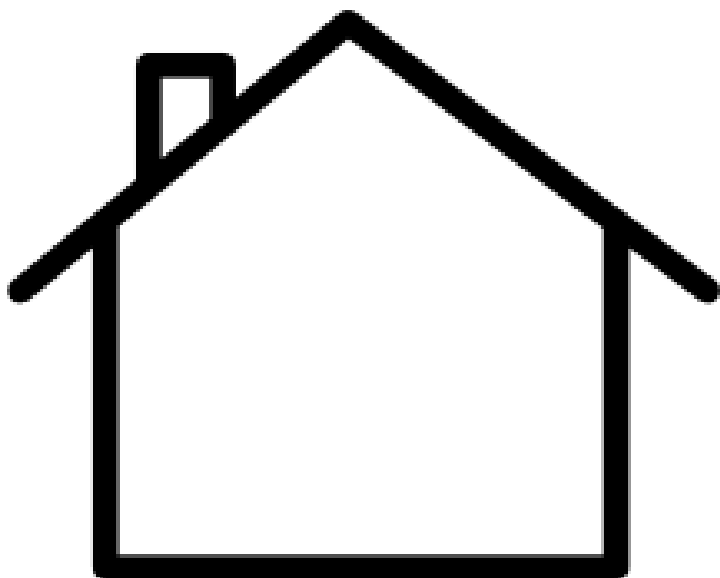
Zooprophylaxis

- **What is it?**
- Passive vs. Pesticide
- Zoophilic Mosquitoes
 - Past Studies



Zooprophylaxis

- What is it?
- **Passive vs. Pesticide**
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Zooprophylaxis

- What is it?
- Passive vs. Pesticide
- **Zoophilic Mosquitoes**
 - Past Studies

Anthropophilic Mosquitoes



Anopheles gambiae

Zoophilic Mosquitoes



Anopheles arabiensis

Zooprophylaxis

- What is it?
- Passive vs. Pesticide
- Zoophilic Mosquitoes
 - **Past Studies**

Research

My Research:

- What: LongRange – Why is it so special?
 - How: Preparation and Methods

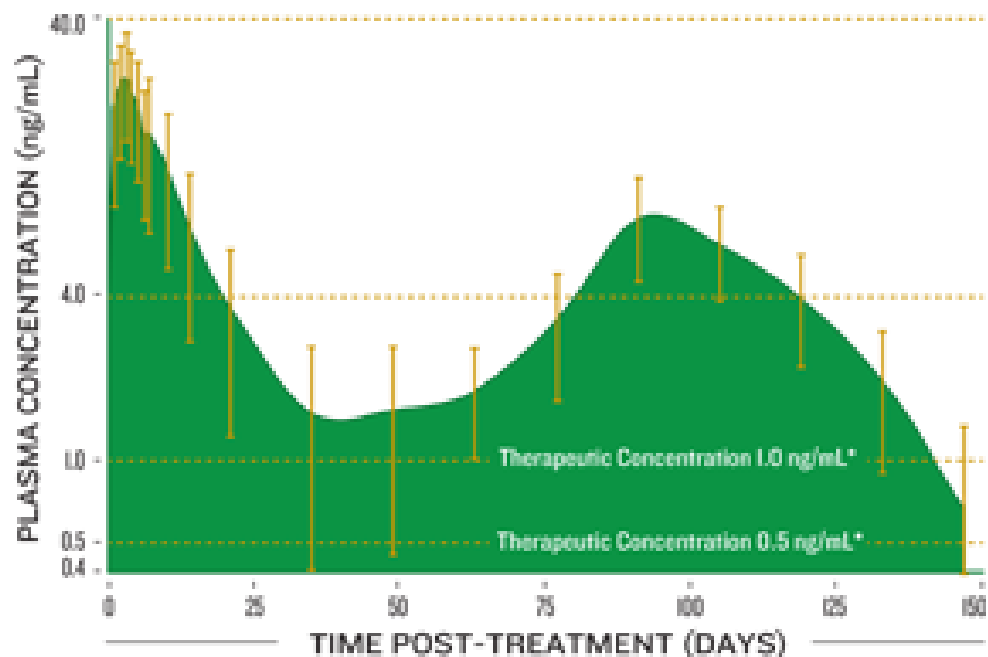


PLGA Polymer

Does it kill mosquitoes?



Available in 500 mL, 250 mL, and 50 mL bottles.
Administer subcutaneously at 1 mL/100 lbs.



Research

My Research:

- What: LongRange – Why is it so special?
 - How: Preparation and Methods





Summary

- Zooprophylaxis, when done effectively, may reduce the number of human bites and of mosquitoes that transmit malaria – currently being studied.
- New longer lasting veterinary drugs on the market may have an impact on agricultural communities where malaria is prevalent.

Sources

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