

The following questions are based on this article.

Tackling Malaria

From

Scientific American, Dec. 2005 issue, page 76

1. How many principle species of the human malaria parasite are currently recognized? Which of these is considered to be the most lethal of the species? What area of the world is regarded as the largest sanctuary of this species?
2. What were the 5 major problems that complicate malarial control efforts in Africa?
3. What two activities carrying out in the wake of the Great Depression played major roles in freeing the rural poor of the American South from the problem of malaria?
4. At the present time, malaria control efforts cost about ___ dollars a year in the African continent.
5. While the disease malaria is a very old human problem, it was the work of ___ and ___ in the late 19th century (1800s) that finally implicated the role of certain mosquitoes in the transmission of malaria.
6. While the of netting has been used since ancient times to protect against the acquisition of malaria, it has only been since WWII that netting and ___ have been used together to effectively prevent humans from getting malaria. The article lists several “problems” that this type of malaria control faces. Cite two of these.
7. One novel approach to the control of malaria that was mentioned in this article involves the genetic engineering of malaria transmitting mosquitoes. The type of engineering mentioned involved inserting what kinds of traits into mosquitoes?
8. While vaccine production to prevent malaria has been in the “works” for a number of years, the author of the article contends that it probably will be another ___ years before such a vaccine will be available.
9. In 2005, President Bush announced a package with a price tag of \$ ___ to fight in Africa over the next ___ years. In addition, the Bill and Melinda Gates Foundation have announced 3 separate grants amounting to a total of approximately \$ ___ to aid in the development more malarial control efforts. What three approaches have these grants funded?
10. The article also notes that DDT has several features that make it an attractive malaria control agent. You should be able to cite 3 of these features.