

## Environmentalists Split on Fooling or Cooling - Tree Planting As a Climate Solution

Last April, American Forests **unveiled** its mission to plant 100 million trees by 2020. The grand plan aimed to quadruple all the group's plantings since 1988. To sell **its** new campaign, American Forests dusted off an old slogan. "Cool the Globe. Plant a Tree" appeared on mailings and publications for the first time in 20 years. The catchphrase packed a simple but powerful message: Individuals can help **alleviate** a planet-sized problem. The campaign was called "Global ReLeaf2" in reference to the greenhouse gas CO<sub>2</sub>. Home furnishing giant IKEA, a longtime American Forests partner, **pledged** an annual contribution of more than \$33,000 per store to American Forests for the Global ReLeaf2 project. The amount would fund enough tree projects to **offset** the emissions created by IKEA customers and employees travelling to and from the store. Trees are the "green machines" that absorb CO<sub>2</sub> and "regulate the earth's atmospheric balance," IKEA promotions read. But some critics say massive planting efforts are fooling more than cooling. Planting seedlings might **appeal** to the average person but seedlings are still inferior in **their** ability to counter climate change. In the September/October issue of *Audubon Magazine*, a conservation and natural ecosystem publication, an article dismissed Global ReLeaf2 as a sham and a distraction from better climate solutions. "The real purpose of these . . . tree planting campaigns is . . . to provide greenwash for industries working to prevent real control of greenhouse-gas pollution," **it** claims.

Ted William's column ran under the title "As ugly as a tree," and ridiculed the same "Cool the earth, plant a tree" message in a column called "Clusterbombing the planet with seedlings". **He** condemned conventional planting practices as **harmful**. The author of the article cites rampant monoculture, nonnative species, and the forestation of prairie lands as serious problems. Not only are tree groups not saving the globe, but **they** are endangering it, he warns. The executive director of American forests, Gangloff, **scorned** the article saying that William's accusations of sloppy planting are wildly inaccurate and that American forests' methods rely on sound forestry research. **Her** response defended American Forests' partnerships with polluters as free of compromise. " . . .we encourage energy conservation as well as tree planting," the letter read. Every local organization that received a Global ReLeaf2 grant submitted a proposal that detailed native species to be planted, pre- and post-care solutions, and planting benefits.

Although Gangloff's letter **countered** many of the **allegations** about American Forests, **it** left a larger question unanswered. Is reforestation a legitimate solution to climate change? In an interview, Gangloff said that while trees are effective against greenhouse gases, **their** cooling properties are side benefits. "If you're going to plant purely for carbon, it's going to be on flat land with lots of sun," she said, "not in places that have been mined, burned, or ravaged by a storm." The underlying mission of Global ReLeaf2 is the same as that of another American Forests' campaign called ReLeaf Katrina, Gangloff said. The 2005 hurricane destroyed much of the Gulf Coast's tree population and urban canopy. By providing grants to community to store lost trees, American Forests was helping to **boost** property values, **replenish** biodiversity, absorb storm-water runoff, beautify neighbourhoods and, yes, reduce greenhouse gases. But the cooling capacity of trees shouldn't be ignored, commented Gangloff. In addition to sequestering about 650 pounds of CO<sub>2</sub> over the life of a tree—American Forests' estimates are lower than others—a tree planted next to a building, for example, leads to major energy savings. Studies have shown that the shade of a mature canopy can lower utility bills as much as 30 percent. When demand goes down, power plants pollute less, the logic goes. Even so, the **overall goal** of tree planting is, was, and always will be restoration, Gangloff said. According to Gangloff, the heavy emphasis on cooling benefits in Global ReLeaf2 literature is smart marketing. Public interest in climate change has been increasing since the documentary *An Inconvenient Truth* grabbed an Oscar® and revived the debate over global warming.

In a 2005 study published in the *Journal of Forestry*, McPherson, director of USDA's center for Urban Forest Research, and his research team measured energy savings from tree shade as high as \$15 per tree per year. The same study found that atmospheric CO<sub>2</sub> reduction added up to a savings of \$1.71 per tree per year. Cooling benefits **lagged** well **behind** aesthetic benefits (up to \$67 per tree per year) but were large enough to be counted, McPherson said. Temperature reductions are most evident in cities. Tree-lined suburbs can be up to 12°F cooler than the urban areas they surround. The concentration of sidewalks, parking lots, buildings, and other dark surfaces creates a "heat island." When discussing global warming, McPherson **emphasizes** planting trees on cityscapes, however he knows the notion of reforestation as a climate solution for rural areas and national parks is more controversial.

A study by Lawrence Livermore National Laboratory in California said that the cooling influence of trees might, in some cases, be negated by the heating effect of lost snow cover. Snow can cool the earth by covering **it** with a more reflective surface. This reflectivity, or "albedo effect" goes down when trees replace flat ground. When forests replace snow cover in northern or southern latitudes the albedo losses far **outweigh** the gains in carbon storage. The models show a net warming. But there is no reason to fear. Forestation will continue because of nonclimate benefits such as the preservation of biodiversity.

Of course, trees are not the only answer. Many things need to be done. **It's** not the only answer but it helps. **Meanwhile**, glaciers melt and polar ice sheets break up. Catastrophe won't wait for politicians to sort out

competing interests. Rather than wait for the next climate conference or energy bill, get out today and plant a tree.

READ THE TEXT FIRST

1.) **VOCABULARY.** Choose the most appropriate alternative (a-b-c) for the meanings of the following words in the context of the article.

1. (line ) unveil	a. uncover	b. discover	c. reveal
2. (line) alleviate	a. take away	b. hinder	c. relieve
3. () pledge	a. say	b. promise	c. swear
4. () offset	a. cancel	b. remove	c. compensate
5. () appeal	a. attract	b. call	c. ask
6. () goal	a. aim	b. success	c. final
7. () harmful	a. innocuous	b. dangerous	c. hurtful
8. () scorn	a. ignore	b. criticise	c. insult
9. () counter	a. balance	b. oppose	c. respond
10. () allegations	a. proof	b. accusations	c. comments
11. () boost	a. increase	b. reduce	c. lower
12. () replenish	a. trigger	b. renew	c. fulfil

\_\_\_\_\_ / 6 POINTS

2.) **REFERENCE WORDS.** Whom or what do the following words refer to in the text?

1. Its (line ) - \_\_\_\_\_

2. Their (line ) - \_\_\_\_\_

3. It (line ) - \_\_\_\_\_

4. he (line ) - \_\_\_\_\_

5. **they (line)** - \_\_\_\_\_
6. **their(line)** - \_\_\_\_\_
7. **you (line)** - \_\_\_\_\_
8. **it (line)** - \_\_\_\_\_
9. **it (line)** - \_\_\_\_\_
10. **(line)** - \_\_\_\_\_

\_\_\_\_\_ / 5 POINTS

3.) **TRUE – FALSE.** Answer TRUE (T) or FALSE (F) to the following statements.

1. \_\_\_\_\_ **“American Forests” aim to increase tree plantation rapidly by 2020.**
2. \_\_\_\_\_ **Trees regulate the earth’s atmospheric balance by absorbing CO2**
3. \_\_\_\_\_ **Only planting trees in urban areas will lead to major energy savings**
4. \_\_\_\_\_ **Planting trees in areas where there has been snow decreases warming**
5. \_\_\_\_\_ **Planting seedlings has the biggest effect on climate change**

\_\_\_\_\_ /5 POINTS

4.) **Answer only one of the following questions. Write 3-5 lines for your reply.**

1. **List some advantages of planting trees in urban areas.**
2. **List some ways that you as a citizen can reduce CO2 emissions in the atmosphere.**

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\_\_\_\_\_ /4 POINTS

5.) **CLOZE: Fill-in the blank spaces (numbered 1 – 20) with the correct word.**

**Trial by fire: New antibody method gets big test.**

When the blood samples arrive, the team 1).....isolate a type of immune system cell known as antibody-secreting plasma cells, 2).....produce a surge of antibodies 3) .....part of an initial response to infection. Using these cells, the researchers will go to work making highly targeted antibodies 4).....the new flu strain, “Within a few weeks from the time we 5)..... the blood, we’re likely to have 6).....of value, said Wilson, adding that the antibodies 7)..... be sent to the CDC for tests to see if they block the virus from infecting the virus from infecting cells grown 8).....the lab. Wilson said that the CDC first plans to use the antibodies 9)..... make rapid diagnostic test kits that quickly identify the new virus without the need 10).....sophisticated lab equipment to match its genetic sequence. Later, they hope to 11)..... antibodies that can be 12).....into people who have 13).....exposed to the virus. “If they 14).....some of these antibodies that are really good 15)..... neutralizing this flu, the potential is there to 16).....it as a therapy, Wilson said. He 17).....that antibody therapy would offer only temporary immunity, but 18)..... could be available much 19).....quickly than a vaccine, which is expected to 20)..... four to six months.

\_\_\_\_\_ / 10 POINTS

**ANSWER KEY:**

**June, 2009**

**Voc.**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

**Ref.** 1. “American Forests”

2. planting seedlings
3. the article (in the sept/oct issue of the Audubon magazine)
4. Ted Williams
5. tree groups
6. Gangloff – executive director of American Forests
7. Gangloff’s letter
8. trees
9. the earth
10. trees

**CLOZE:**

- |               |                   |
|---------------|-------------------|
| 1. will       | 11. make/produce  |
| 2. which/that | 12. injected      |
| 3. as         | 13. been          |
| 4. against    | 14. find/discover |
| 5. get/obtain | 15. At/for        |
| 6. something  | 16. use           |

7. will/would be    17.said/believes/hopes/thinks  
8. in                    18. it  
9. to/ in order to    19. more  
10. For/of              20. take