

HOW MUCH CARBON IS IN A TREE? (kg)

| | Circumference at Breast Height (m) | | | | | | | | | | | | | | | | | |
|-----|------------------------------------|------|-----|------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.25 | 0.5 | 0.75 | 1.0 | 1.25 | 1.5 | 1.75 | 2.0 | 2.25 | 2.5 | 2.75 | 3.0 | 3.25 | 3.5 | 3.75 | 4.0 | 4.25 |
| 2.0 | 10 | 14 | 19 | 26 | 36 | 48 | 61 | 77 | 95 | 115 | 138 | 162 | 189 | 217 | 248 | 281 | 316 | 353 |
| 4.0 | 11 | 18 | 28 | 43 | 62 | 86 | 113 | 145 | 181 | 221 | 266 | 315 | 368 | 425 | 486 | 552 | 622 | 696 |
| 6.0 | 13 | 22 | 38 | 60 | 89 | 124 | 165 | 213 | 267 | 327 | 394 | 467 | 547 | 633 | 725 | 823 | 928 | 1,040 |
| 8.0 | 14 | 26 | 48 | 77 | 115 | 162 | 217 | 281 | 353 | 433 | 522 | 620 | 726 | 840 | 963 | 1,095 | 1,235 | 1,383 |
| 10 | 15 | 31 | 57 | 94 | 142 | 200 | 269 | 349 | 439 | 539 | 651 | 773 | 905 | 1,048 | 1,202 | 1,366 | 1,541 | 1,727 |
| 12 | 16 | 35 | 67 | 111 | 168 | 238 | 321 | 416 | 525 | 645 | 779 | 925 | 1,048 | 1,256 | 1,440 | 1,638 | 1,848 | 2,070 |
| 14 | 17 | 39 | 76 | 128 | 195 | 276 | 373 | 484 | 610 | 751 | 907 | 1,078 | 1,263 | 1,464 | 1,679 | 1,909 | 2,154 | 2,414 |
| 16 | 18 | 43 | 86 | 145 | 221 | 315 | 425 | 552 | 696 | 857 | 1,035 | 1,231 | 1,443 | 1,672 | 1,917 | 2,180 | 2,460 | 2,757 |
| 18 | 19 | 48 | 95 | 162 | 248 | 353 | 477 | 620 | 782 | 963 | 1,164 | 1,383 | 1,622 | 1,879 | 2,156 | 2,452 | 2,767 | 3,101 |
| 20 | 20 | 52 | 105 | 179 | 274 | 391 | 529 | 688 | 868 | 1,069 | 1,292 | 1,536 | 1,801 | 2,087 | 2,394 | 2,723 | 3,073 | 3,444 |
| 22 | 21 | 56 | 114 | 196 | 301 | 429 | 581 | 756 | 954 | 1,175 | 1,420 | 1,688 | 1,980 | 2,295 | 2,633 | 2,994 | 3,379 | 3,787 |
| 24 | 22 | 60 | 124 | 213 | 327 | 467 | 633 | 823 | 1,040 | 1,281 | 1,549 | 1,841 | 2,159 | 2,503 | 2,872 | 3,266 | 3,686 | 4,131 |
| 26 | 23 | 64 | 133 | 230 | 354 | 505 | 685 | 891 | 1,126 | 1,387 | 1,677 | 1,994 | 2,338 | 2,710 | 3,110 | 3,537 | 3,992 | 4,474 |
| 28 | 24 | 69 | 143 | 247 | 380 | 544 | 737 | 959 | 1,211 | 1,493 | 1,805 | 2,146 | 2,517 | 2,918 | 3,349 | 3,809 | 4,298 | 4,818 |
| 30 | 25 | 73 | 152 | 264 | 407 | 582 | 789 | 1,027 | 1,297 | 1,599 | 1,933 | 2,299 | 2,697 | 3,126 | 3,587 | 4,080 | 4,605 | 5,161 |
| 32 | 26 | 77 | 162 | 281 | 433 | 620 | 840 | 1,095 | 1,383 | 1,705 | 2,062 | 2,452 | 2,876 | 3,334 | 3,826 | 4,351 | 4,911 | 5,505 |
| 34 | 27 | 81 | 172 | 294 | 460 | 658 | 892 | 1,163 | 1,469 | 1,811 | 2,190 | 2,604 | 3,055 | 3,541 | 4,064 | 4,623 | 5,217 | 5,848 |
| 36 | 28 | 86 | 181 | 315 | 486 | 696 | 944 | 1,231 | 1,555 | 1,917 | 2,318 | 2,757 | 3,234 | 3,749 | 4,303 | 4,894 | 5,524 | 6,192 |
| 38 | 29 | 90 | 191 | 332 | 513 | 734 | 996 | 1,298 | 1,641 | 2,023 | 2,446 | 2,910 | 3,413 | 3,957 | 4,541 | 5,166 | 5,830 | 6,535 |
| 40 | 31 | 94 | 200 | 349 | 539 | 773 | 1,048 | 1,366 | 1,727 | 2,129 | 2,575 | 3,062 | 3,592 | 4,165 | 4,780 | 5,437 | 6,137 | 6,879 |
| 42 | 32 | 98 | 210 | 366 | 566 | 811 | 1,100 | 1,434 | 1,813 | 2,235 | 2,703 | 3,215 | 3,772 | 4,373 | 5,018 | 5,708 | 6,443 | 7,222 |
| 44 | 33 | 103 | 219 | 382 | 592 | 849 | 1,152 | 1,502 | 1,898 | 2,341 | 2,813 | 3,368 | 3,951 | 4,580 | 5,257 | 5,980 | 6,749 | 7,565 |
| 46 | 34 | 107 | 229 | 399 | 619 | 887 | 1,204 | 1,507 | 1,984 | 2,448 | 2,960 | 3,520 | 4,130 | 4,788 | 5,495 | 6,251 | 7,056 | 7,909 |
| 48 | 35 | 111 | 238 | 416 | 645 | 925 | 1,256 | 1,638 | 2,070 | 2,554 | 3,088 | 3,673 | 4,309 | 4,996 | 5,734 | 6,522 | 7,362 | 8,252 |

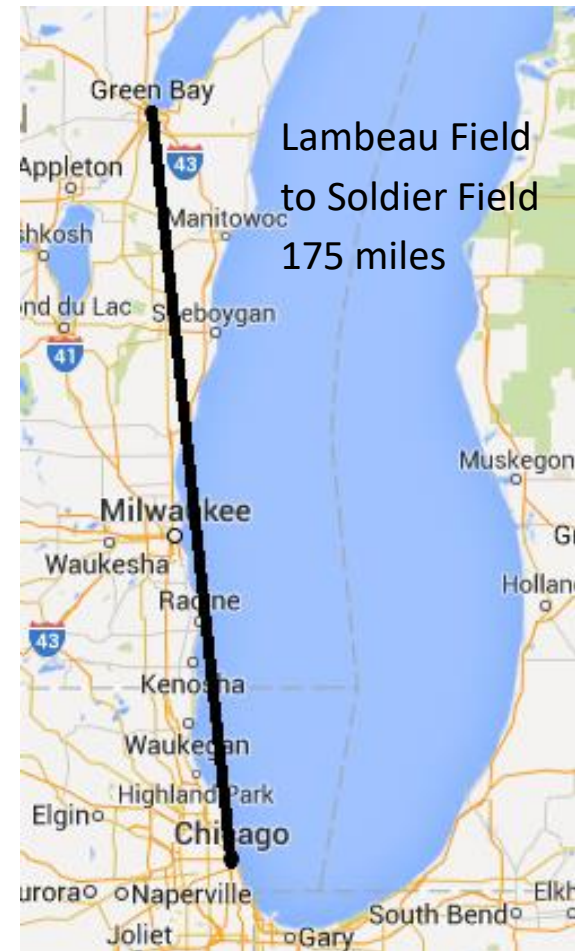
Reproduced from Project Learning Tree's Exploring Environmental Issues: Focus on Forests.

Estimates based on the formula M_c (mass of carbon in the tree) = $0.5 \times M_w$ (mass of the wood), where $M_w = 0.55 \times V$ (volume of tree) $\times D_w$ (density of wood); $V = 0.0567 + 0.5074 \times (CBH/\pi)^2 \times H$. It assumes that $D_w = 0.6 \text{ g/cm}^3$, and that water makes up 45 percent of the tree's mass

<http://www.plt.org./focus-on-forests-activity-8---climate-change-and-forests>

| How Far Can I Fly in a Boeing 747? Chart | | |
|---|----------------------------|--|
| Amount of carbon (kg) | Distance flown (mi) | Amount of CO₂ sequestered (kg) |
| 0-500 | 0-11 | 1,833 |
| 501-1,000 | 12-22 | 3,666 |
| 1,001-1,500 | 23-33 | 5,499 |
| 1,501-2,000 | 34-44 | 7,333 |
| 2,001-2,500 | 45-55 | 9,166 |
| 2,501-3,000 | 56-66 | 10,999 |
| 3,001-3,500 | 67-77 | 12,832 |
| 3,501-4,000 | 78-88 | 14,665 |
| 4,001-4,500 | 89-99 | 16,498 |
| 4,501-5,000 | 100-110 | 18,331 |
| 5,001-5,500 | 111-121 | 20,165 |
| 5,501-6,000 | 122-132 | 21,998 |
| 6,001-6,500 | 133-143 | 23,381 |
| 6,501-7,000 | 144-155 | 25,664 |
| 7,001-7,500 | 156-166 | 27,497 |
| 7,501-8,000 | 167-177 | 29,330 |
| 8,001-8,500 | 178-188 | 31,164 |

Boeing. 2014. 747 Family: 747-8 Intercontinental fun facts.
www.boeing.com/boeing/commercial/747family/pf/pf_facts.page



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