

Spreadsheet for the Math of The Ethics of Dairy vs Almond Milk

Note: Whenever there were numbers in a range, all numbers were taken to favor the vegan case wherever possible.

Bee Deaths

% of bees that die	20-40%
# of hives	2 million
Bees per hive	<10,000
	The math: 2,000,000 hives x 10,000 bees/hive x .2=
# of bee deaths	4,000,000,000 bees/year

Almonds

# pounds almonds	2,200 million	2,200,000,000 pounds x 16 oz/lb=	
# ounces almonds	35,200,000,000		
Calories/ounce	129	35,200,000,000 oz x 129=	
Total calories/year	4,540,800,000,000 total calories		

Honey

Total honey produced	1.47 million pounds	1,470,000 lbs
calories per pound	1,382 calories per pound	1,382 cal/lb x 1,470,000 lbs=
Total Calories	2,031,540,000 calories	
% of bees used in the almond harvest	70%	2,031,540,000 x .7=
Bees/calorie	1,422,078,000	
Bees Time Foraging on Almonds(months)	1 month or less of 9 months/year forage	1,422,078,000 / 9=
Total calories of honey/almond harvest	158,008,666	

Total Bee Calories

Almond calories	4,540,800,000,000
Honey calories	158,008,667
Total almond harvest calories	4,540,958,008,667

Calories/Bee Death

Total almond harvest calories	4,540,958,008,667
Total almond harvest bee deaths	4,000,000,000
Calories/Bee Death	1,135

Dairy

Pounds milk	17,500 million pounds	17,500,000,000 pounds of milk
Calories/pound	272	17,500,000,000 x 272=
Total milk calories	4,760,000,000,000	

Cow Deaths

# dairy cows total	9 million
% slaughtered/year	20%
	Math: .2 x 9,000,000=
Total slaughtered/year	1,800,000 cow deaths/year

Beef from Dairy Cows

# of cows/year	1,800,000	
Pounds beef/cow	430	430 x 1,800,000=
Total pounds of beef/yr	774,000,000	
Calories/pound	650-1200	774,000,000 x 650=
Total beef calories	503,100,000,000	

Total Dairy Cow Calories

Beef calories	503,100,000,000 +
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Milk Calories	4,760,000,000,000
Total cow calories/year	5,263,100,000,000

Calories/Cow Death

Total cow calories/year	5,263,100,000,000 /
Cow Deaths/year	1,800,000
Calories/death	2,923,944

Comparison

Calories Per Death: Cows vs Bees

Calories Per Cow Death	2,923,944
Calories Per Bee Death	1,135
Cow/Bee Ratio	2,576 times more calories per cow death