

# Chicken Feathers Everywhere

Poultry farmers raise millions and millions of chickens every year. These birds feed people in every country of the world. Unfortunately, in the past, the billions of pounds of feathers that these chickens produce were seen as useless waste.

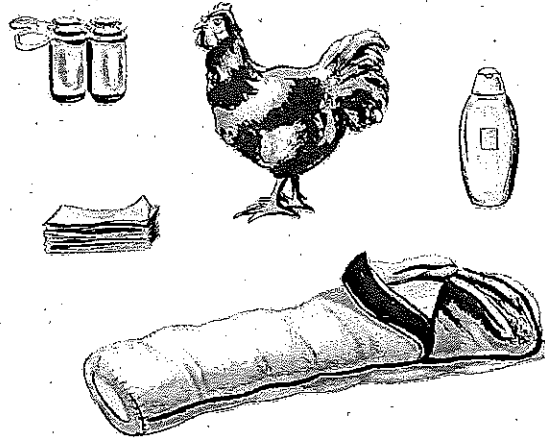
(1) For decades, attempts to find a use for these many tons of feathers proved *futile*. (2) Thinking the feathers were just an *extraneous* byproduct of meat or egg production, farmers simply wanted to get rid of them. (3) Often, it was *expedient* to have them hauled off, usually to be dumped in a landfill.

But the situation is changing. (4) Recently, people have discovered ways to make chicken feathers *functional* ingredients in everything from disposable diapers to car parts. (5) Soon, *pragmatic* businesspeople may help turn this waste product into a valuable resource.

We know feathers help birds fly and stay warm, but what can they do for humans? (6) Feathers are highly absorbent, a fact *relevant* to soaking up liquids. This means that material from chicken feathers can be used in disposable diapers and wipes. Feathers can also trap tiny particles. (7) This trait is *applicable* to the making of air and water filters. Also, since chicken feathers are light and fluffy, they make good insulation. Your next comforter, sleeping bag, or warm winter jacket might be filled with chicken feathers. Soon, chicken feathers may even be used to soundproof and insulate walls!

(8) Not all the possible roles for chicken feathers are this *utilitarian*, however. They are already used to make beautiful specialty paper. It is very strong, and, unlike paper made from wood pulp, it can be recycled over and over without losing its quality. Since commercially bred chickens have white feathers, the feathers don't even have to be bleached the way wood pulp does. This saves money and eliminates the use of some toxic chemicals.

The hard quills in the feathers also may have many uses. The protein they contain can be used in shampoos and hair conditioners. The stiff material can be used not only to make car dashboards but also the rings that hold six-packs of soft drinks together. Because chicken feathers are cheap, they are especially attractive for these and other uses. Like the softer parts of the feathers, the quills are relatively easy to recycle.



(9) The chance to use chicken feathers in new ways could not have come at a more *opportune* time. Americans produce more garbage, per person, than any other nation in the world. The increasing size and number of landfills in the United States is becoming a major concern. Some have said that we are slowly being surrounded by our own trash. (10) If we're lucky, the practice of simply throwing away tons and tons of chicken feathers will soon be completely *obsolete*. Hopefully, our scientists, inventors, and businesspeople will come up with even more ways to use and reuse this plentiful resource.

Each sentence below refers to a numbered sentence in the passage. Write the letter of the choice that gives the sentence a meaning that is closest to the original sentence.

- \_\_\_\_\_ 1. Attempts to find a use for these many tons of feathers proved \_\_\_\_\_.  
 a. practical                      b. outdated                      c. related                      d. unsuccessful
- \_\_\_\_\_ 2. The farmers thought the feathers were just a(n) \_\_\_\_\_ byproduct.  
 a. well-timed                      b. practical, ugly                      c. unrelated, extra                      d. out-of-date
- \_\_\_\_\_ 3. Often, it was \_\_\_\_\_ to have them hauled off.  
 a. significant                      b. convenient                      c. useless                      d. extra
- \_\_\_\_\_ 4. People have discovered ways to make chicken feathers \_\_\_\_\_ ingredients.  
 a. useful, working                      b. outdated, old                      c. extra, special                      d. ineffective

NAME \_\_\_\_\_

DATE \_\_\_\_\_

- \_\_\_\_\_ 5. \_\_\_\_\_ businesspeople may help turn this waste product into a valuable resource.  
 a. Out-of-date      b. Practical-minded      c. Related      d. Connected
- \_\_\_\_\_ 6. Feathers are highly absorbent, a fact \_\_\_\_\_ soaking up liquids.  
 a. unrelated to      b. important for      c. ineffective at      d. easy for
- \_\_\_\_\_ 7. This trait is \_\_\_\_\_ to the making of air and water filters.  
 a. useless      b. easy      c. related      d. external
- \_\_\_\_\_ 8. Not all the possible roles for chicken feathers are this \_\_\_\_\_, however.  
 a. pretty and artsy      b. frilly and silly      c. extra and strange      d. practical and useful
- \_\_\_\_\_ 9. The chance to use chicken feathers in new ways could not have come at a more \_\_\_\_\_ time.  
 a. unsuccessful      b. related      c. outdated      d. fitting
- \_\_\_\_\_ 10. Throwing away tons of chicken feathers will soon be completely \_\_\_\_\_.  
 a. unrelated      b. convenient      c. outdated      d. practical

Indicate whether the statements below are TRUE or FALSE according to the passage.

- \_\_\_\_\_ 1. Chicken feathers contain protein.
- \_\_\_\_\_ 2. Feathers are not useful to human beings.
- \_\_\_\_\_ 3. Finding more uses for chicken feathers would help limit the amount of material dumped in landfills.

## WRITE THE DERIVATIVE

Complete the sentence by writing the correct form of the word shown in parentheses. You may not need to change the form that is given.

- \_\_\_\_\_ 1. The \_\_\_\_\_ of trying to avoid colds by staying inside all winter should be obvious: indoor air carries more germs than fresh air does. (*futile*)
- \_\_\_\_\_ 2. The widespread use of cars has made the use of horses for transportation almost \_\_\_\_\_. (*obsolete*)
- \_\_\_\_\_ 3. I'm not questioning the \_\_\_\_\_ of what you said; I'm questioning its truth. (*relevant*)
- \_\_\_\_\_ 4. The stockbroker found it \_\_\_\_\_ to hide the fact that his aunt was president of the company whose stock he'd just recommended. (*expedient*)
- \_\_\_\_\_ 5. The entire family recognized the \_\_\_\_\_ of the new computer. (*utilitarian*)
- \_\_\_\_\_ 6. The regulation is not \_\_\_\_\_ in this case. (*applicable*)
- \_\_\_\_\_ 7. You would have to rely on \_\_\_\_\_ to survive on a desert island. (*pragmatic*)
- \_\_\_\_\_ 8. Details about Michael Jordan are \_\_\_\_\_ to a conversation about pro football. (*extraneous*)
- \_\_\_\_\_ 9. Wasted \_\_\_\_\_ can come back to haunt you later in life. (*opportune*)
- \_\_\_\_\_ 10. Your brain is not fully \_\_\_\_\_ if you don't get enough sleep. (*functional*)