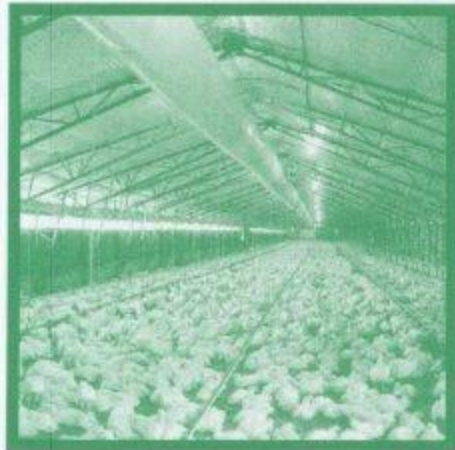


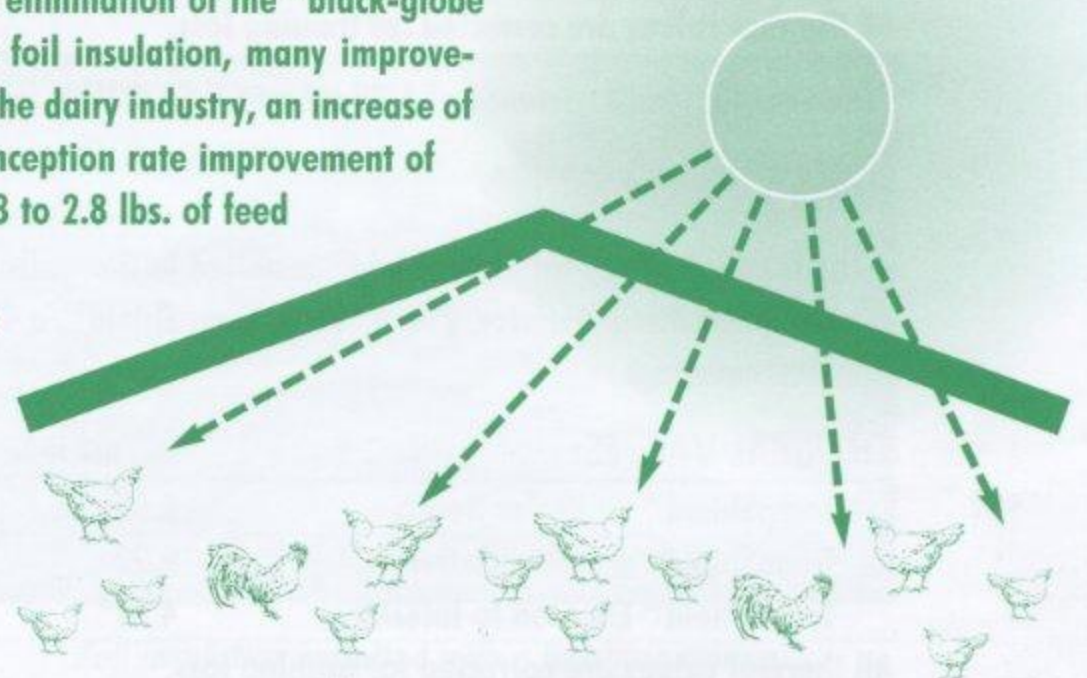
TempShield™ and the Black Globe Effect



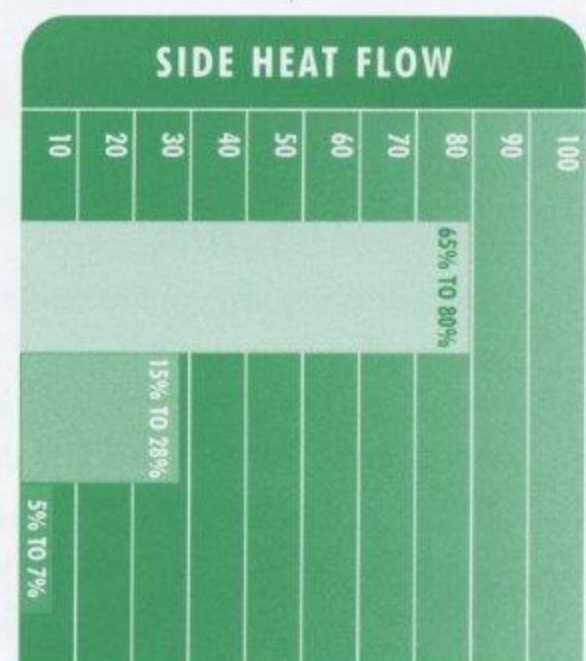
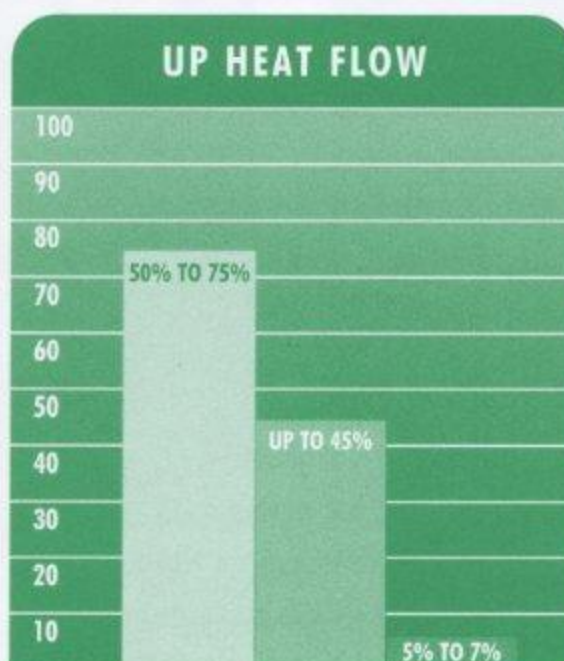
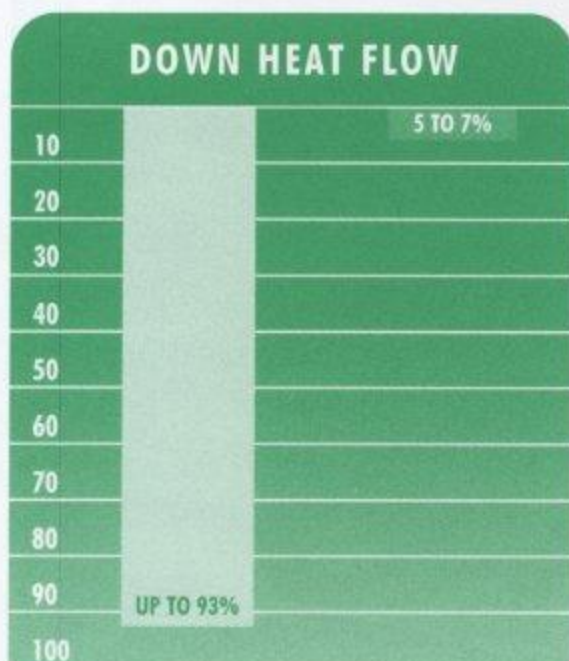
A little known natural phenomenon called the "black-globe effect" has a pronounced stress factor relating to the cost efficiency (or inefficiency) of weight gain in meat producing animals and birds. Whether an animal is outdoors or indoors, in temperatures exceeding 78° F, it absorbs a tremendous increase in radiant energy from the sun. Although the animal may be confined to a building, the "black-globe effect" on the animal is the same as if it were actually 10 to 20° F higher than air temperature. Studies show that with the elimination of the "black-globe effect" through the use of reflective foil insulation, many improvements are immediately apparent. In the dairy industry, an increase of

as much as 10% in milk production has been noted. Also noted; a conception rate improvement of nearly 24%. Broiler house feed conversions went from averages of 2.3 to 2.8 lbs. of feed per lb. of bird to a much improved 1.99 feed conversion.

Many growers are finding that their animals grow faster and more efficiently after installing TempShield™. Death losses from heat are greatly reduced. The illustration to the right shows how an animal is heated even though the air temperature may not rise much. In winter, indoor heat is reflected back into the living space to produce greater comfort and energy savings.



TempShield™ Blocks Radiant Heat Transfer



- Radiation
- Conduction
- Convection

According to an analysis performed at Penn State University, approximately 75% of total heat transfer in structures occurs through radiation. The foil in TempShield™ reflects 97% of the radiant energy striking it. An example of heat flow down is through the floor in the winter or through the attic in the summer. Heat flow up is through the ceiling in the winter. Heat flow side refers to heat loss through the walls.