<<生物环境工程导论>>

图书基本信息

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作者:张源辉编

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内容概要

Human Thermal Comfort Zone、Thermal Control for Livestock Facilities、Heat Stress in Animal Production、Threshold Limits for Typical Indoor Pollutants等。

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Acknowledgement

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章节摘录

1.1 Air Composition In order to define air quality, a baseline reference to "clean air" or " standard air " should first be established. A typical clean air is the dry atmosphere air found in rural areas or over the ocean far from air pollution sources. The chemical composition of such clean dry atmospheric air is listed in Table 1-2. The atmospheric air also contains from 0.1% to 3 % of water vapor by volume depending on clean air defined in Table 1-2 is typical because in many instances, other traces of components are also found in the atmosphere that is considered clean. These other tracer components include sulfur dioxide, formaldehyde, carbon monoxide, iodine, sodium chloride, and ammonia, particulate matters such as dust and pollens. Based on the definition of clean air, air quality refers to the degree of pollution of the clean air. In general, the lower the oncentration of airborne pollutants, the better the air quality. Airborne pollutant is defined as the substances in the air that can harm the health and comfort of humans and animals, reduce performance and production of plants, or accelerate damage to equipment. Airborne pollutants can be in the form of solid (e.g., particulate matters), liquid (e.g., mists) and gaseous substances. Excessive high concentrations or depletion of substances listed in Table 1-2 can impose serious air quality problems. For example, it is suspected that excessive emissions of carbon dioxide and methane are responsible for greenhouse effects and global warming.

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