

Topic: "Acid rain"

Tasks:

1. Reasons for the formation of acid rain.
 2. How is acid rain formed.
 3. Effects.
- And how to deal with this problem.



ACID RAINS

The term "acid rain" was introduced by the English chemist A. Smith more than 100 years ago, when he was able to identify the relationship between the air level over Manchester and acid precipitation.

However, the harmful environmental consequences of rainfall have only been manifested in the last 15-20 years. When any fuel is burned, sulfur dioxide and nitrogen dioxide are always found in the gases that are released.



acid rain

Кислотные дожди могут иметь и сильноокислую реакцию. Кислотная вода может содержать столько же кислоты, как лимонный сок или уксус. Туман, изморось и снег могут быть еще более кислотными, чем дождь, поскольку они поглощают из воздуха большее количество загрязняющих веществ.

- Acid rain may also have a strong acid reaction. Acidic water can contain as much acid as lemon juice and vinegar.
- Fog, frost and snow can be even more acidic than rain, as they swallow more of the polluting substance from the air



CONSEQUENCES OF ACID RAINS

- * Land and plants, of course, also suffer from acid rain. Decreased the productivity of soils, the supply of nutrients decreases
- * Acid rain causes great damage to forests. The forests dry up, Dryness on large areas develops. In coniferous trees the needles become yellow and fall, the crowns are thinned, thin roots are damaged.
- * In deciduous trees the color of leaves changes, prematurely falls off



..... .. and more consequences

- In Europe there are more than 100 thousand valuable stained-glass windows - monuments of medieval Gothic art. There is a danger of a complete loss of these works of art in the next 15 to 20 years.
- Indirectly, people's health suffers: additional pollution of drinking water arises, since acid displaces various toxic metals from the rocks - mercury, lead, cadmium, zinc and others.
- The leaves of tomatoes, soybeans, beans, tobacco, eggplant, sunflower were the most exposed to the adverse effects; winter wheat, maize, salad, alfalfa, clover are the least susceptible.



..... how to deal with acid rain.

- To save nature from acidification is necessary. To do this, it is necessary to sharply reduce the emissions of sulfur and nitrogen oxides to the atmosphere, but primarily of sulfur dioxide, since it is sulfuric acid and its salts that account for 70-80% of the acidity of rains falling out at large distances from their emission sites
- Sulfur emissions in Europe exceed now 30 million tons annually.



Последствия кислотных дождей – желтые пятна и засохшие кончики листьев растений.