

### Disadvantages of modern farming techniques

#### Task:

My task is to write as an environmentalist complaining about modern farming techniques and their damaging effects on the environment.

As an environmentalist - it is my concern that modern farming techniques are harming the environment in serious and irreversible ways.

I particularly would like to comment on the issue of Eutrophication. This is an issue that needs to be dealt with in a serious and unprovocative manner.

Eutrophication [concerning the contamination of nearby rivers and streams from the nitrate rich fertilizer] basically means that although a substance which is very good for unnatural fast growth in plants is released into the rivers, it also means that too much of this 'good thing' can cause far more damaging effects in other parts of the food web.

The problem starts when too much of the rich fertiliser finds its way into rivers or streams. This can occur if too much of the fertiliser is applied on the farmland or it rains soon after the fertiliser is applied so that the fertiliser runs off and into the rivers/streams. The excess nitrate washes into the river causing rapid growth of plants and algae. In turn this then means there is competition among the plants for light in order to survive. Obviously not all plants can survive this battle and many will die. However before this happens, the microbes have increased and use up all of the oxygen in the water causing the mass death of fish and other river life.

We know that too many nitrates in the water causes a sequence of 'mega growth', 'mega death' and 'mega decay', which involves most of the plant and animal life in the water. This in turn will affect other parts of the food web and humans whether they eat substances directly or indirectly from the river/stream affected. This is an obvious problem that needs to be addressed.

The obvious and probably most effective way of preventing this problem would be to build a small [but significant] fence around the farm boundaries so that the fertilizer run off would not contaminate any of the rivers/streams etc. and instead would be trapped at the foot of the fence.

Another prevention would be to measure the amount of fertilizer used on the farmland so that if it rained soon afterwards, there wouldn't be a significant amount of nitrate in the soil to cause extensive damage when contaminating the river. This is probably the cheapest way of limiting the damage caused by farmers although one of the most time consuming.

A measure that could possibly be used to cure the contaminated subject would be to insert a counter productive chemical into the water to reverse what damage might be caused to the plant life in question.

My last solution to the problems presented by eutrophication would be for the fertilizer producers to make the fertilizer so that with specific usage it can be

quickly absorbed into the soil and won't be affected by rain, thus none of the nitrates can be washed into the river/stream in question.

With these measures, especially with all of them active at the same time, the problem of eutrophication where farming is concerned will no longer be present.

