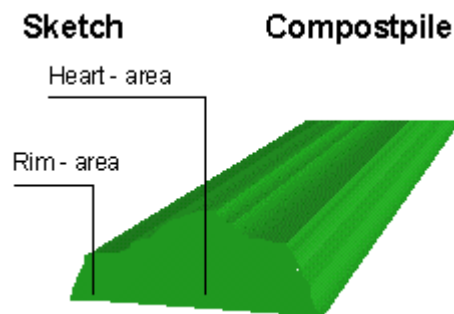


Report on use of BioAktiv Powder in GKR Large Komposting Plant Velbert Habertstrasse - Plöger Steinbruch 42557 Velbert Germany

At 2. December 1996 has the GKR-Company in Velbert heaped up 2 equal compost piles with about 60 tons of green material and bio-garbage. The material was shredded and riddled from parts > 30 mm.

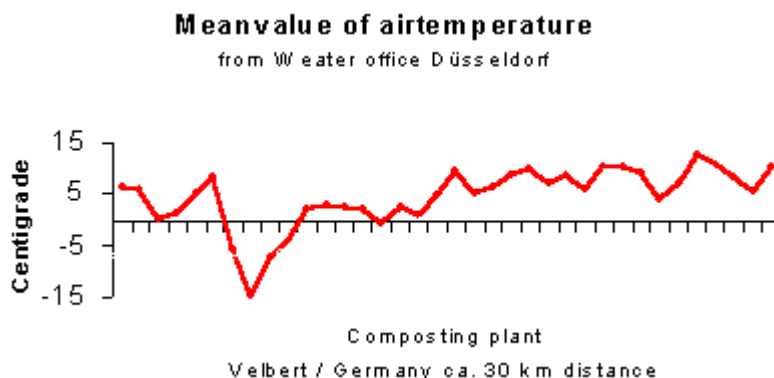
One pile stayed untreated. On the other pile were brought out 4 kg BioAktiv-powder for composting that way, that the powder was soluted in 600 litres of fresh water and sprinced over the pile.

The first measuring was executed at 5.12.1996 and then repeated all 3 - 5 days. The found out values were taken to make graphic diagrams.



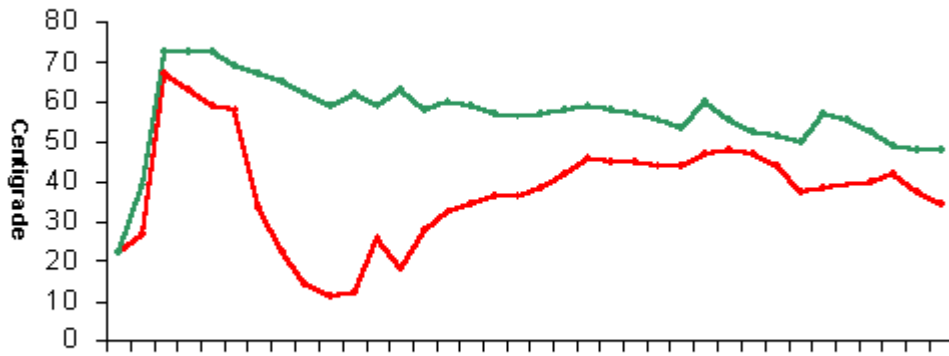
Valuation:

1. Temperature



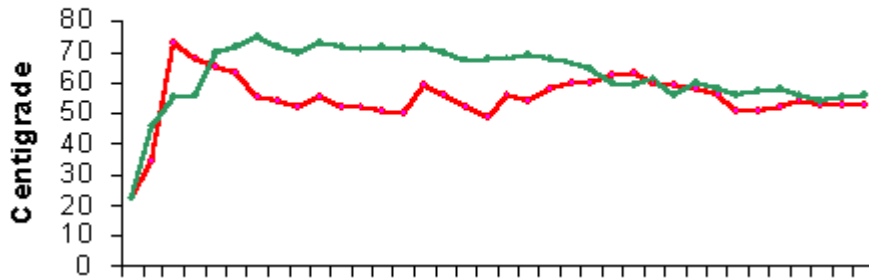
Compostpile 05.12.96 - 09.04.97

Temperature in the rime-area 80 cm deep



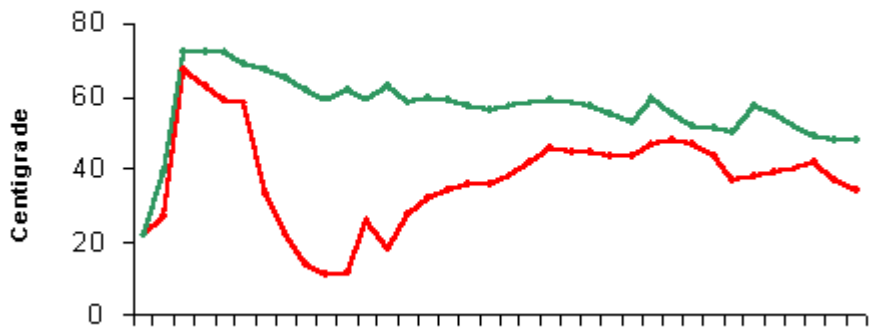
green - with Bio Active , red - without Bio Active

Temperature in the heart-area 80 cm deep



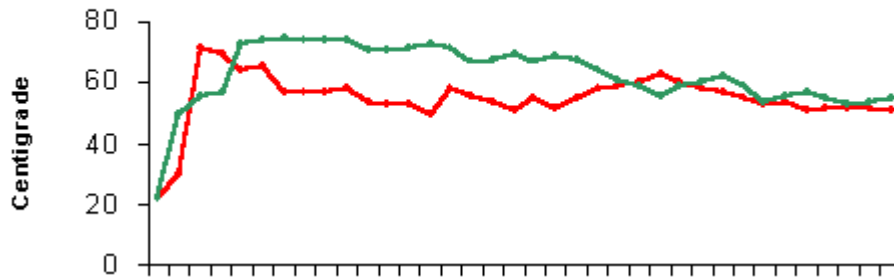
Compostpile 05.12.96 - 09.04.97

Temperature in the rim-area 160 cm deep



green - with BioActive, red - without BioActive

Temperature in the heart-area 160 cm deep



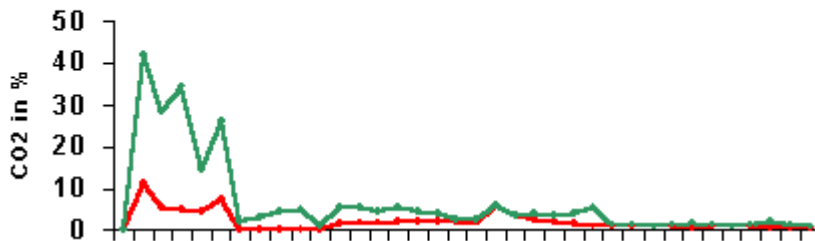
The first diagram shows air-temperature over the whole time of observation. It shows the daily mean-values. These have been significantly lower sometimes during the night.

The 2nd - 4th diagrams are showing, that the BioAktiv-pile has a higher, but also evenly constant course of temperature in all parts. The outside-airtemperature does not affect so much. The higher encrease of temperature proves, that aerobe bacteria are working stronger in BioAktiv treated piles.

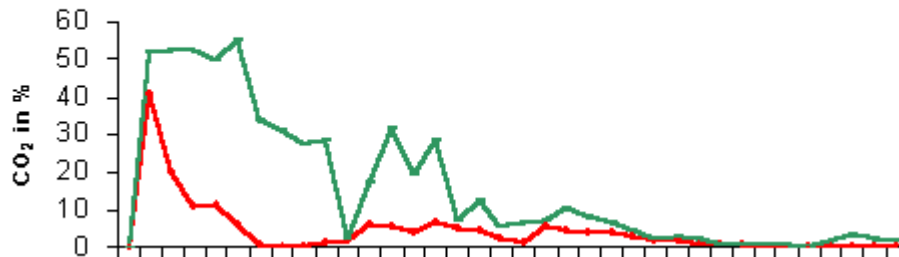
2. Content of CO₂ in %

Kompostpile 05.12.96 - 09.04.97

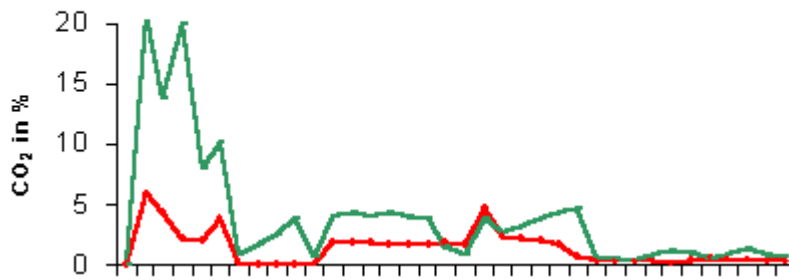
CO₂ % in the rime-area 80 cm deep



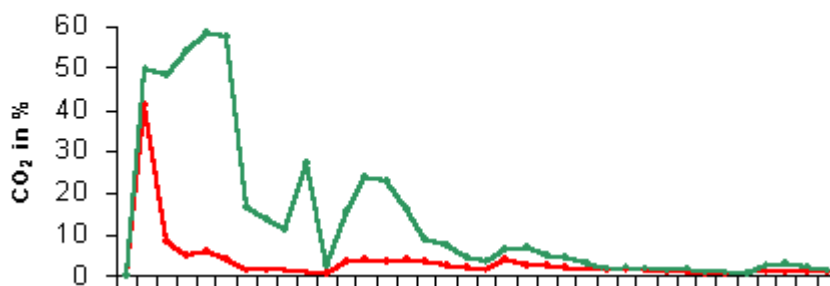
CO₂ % in the heart-area 80 cm deep



CO₂ % in the rime-area 160 cm deep



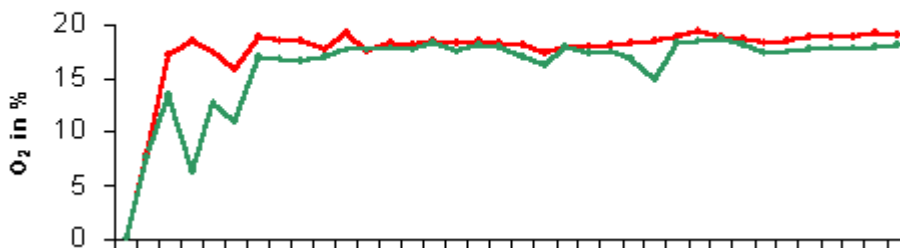
CO₂ % in the heart-area 160 cm deep



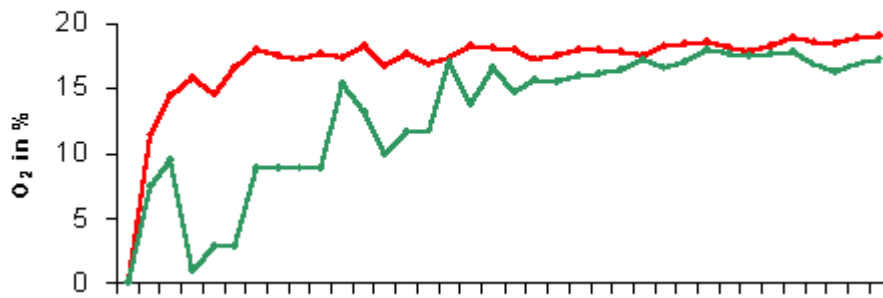
The CO₂-values, measured in the BioAktiv-pile are significantly higher. The reason is, that the aerobic bacteria are decomposing essentially more carbohydrates by "breathing in" oxygenium and "breathing out" CO₂. The real composting-process is working stronger in the BioAktiv-pile.

3. Content of oxygenium in %

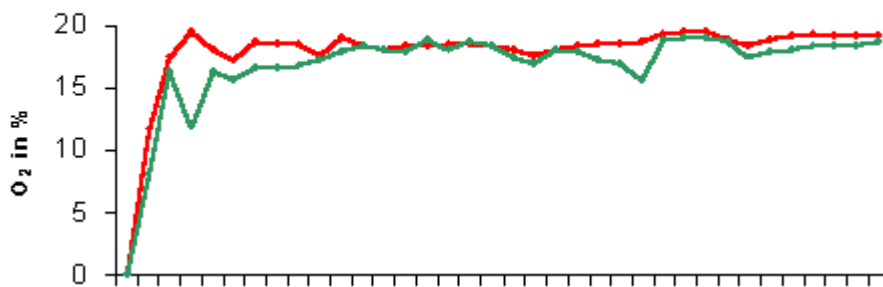
O₂-content in the rime-area 80 cm deep



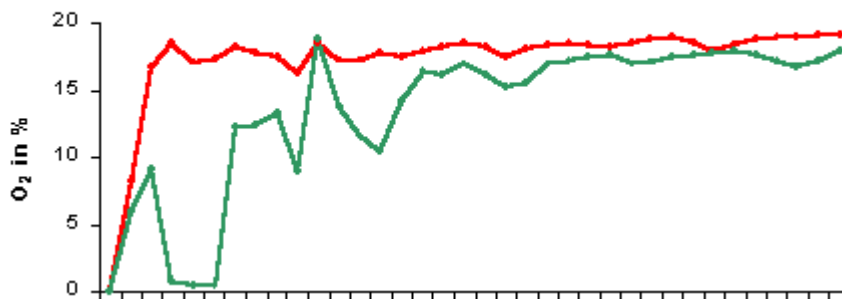
O₂-content in the heart-area 80 cm deep



O₂-content in the rime-area 160 cm deep



O₂-content in the heart-area 160 cm deep



The content of O₂ is exactly reciprocal to the CO₂-values. That shows same: The aerobic bacteria are consuming quickly all available oxygenium.

Conclusion

1. Use of BioAktiv-powder for composting improves and shortens duration of the composting-process.
2. Use of BioAktiv-powder for composting relieves environment.
3. Use of BioAktiv-powder for composting improves quality of compost.
4. Use of BioAktiv-powder for composting improves output of composting-facilities.

