

Rediscovering Plants

Rheinauer Theses on the Rights of Plants

Acknowledging that all living organisms have a common origin, considering that in their differentness plants will in the final analysis always remain a mystery to us, attempting to comprehend plant nature more deeply and to protect its uniqueness, we propose the following theses with the aim of allowing plants to express themselves for their own sake, and claiming rights on their behalf.

THE PLANT

1. Plants are living beings.
2. Plants are related to animals and humans. Our common origin lies in monocellular organisms that have diversified into a unique variety of life forms through an evolutionary process nearly three billion years long.
3. This common history leads to many correlations at the cellular level.
4. But at the same time plants are also different from animals and humans. They are bound to the soil and practice photosynthesis. They create the foundation for nourishment of animals and humans.
5. We must withstand the temptation of humanising the plant. Plants are no “slow” or “lower” animals either, but constitute a life form in their own right.
6. Like all living beings, plants react to their constantly changing environments. They communicate with each other and with other life forms, above as well as below the earth's surface. For this, they use scents and other varied signals. Their growth and their reactions to the environment are not merely genetically determined reflexes. Plants adapt individually.
7. We still know very little about plants' abilities to perceive. Although cellular and molecular biology do provide some evidence that a sensitive faculty seems possible, complete chains of evidence are thus far lacking. However asserting that plants have no ability to perceive or feel pain is just as speculative as claiming the opposite.
8. Because we do not know if and how plants sense pain, our interaction with them must be based on consideration.
9. Plants are individuals too.
10. Plants experience the world in their own way. They have a life of their own. They are their own selves. This 'self' is hard for us to comprehend, but we can see that it exists. To view plants as entirely disposable objects is to do them an injustice.

PLANTS AND THE ENVIRONMENT

11. Plants are connected to the soil. Thus their relationship with their environment is quite different than that of animals and humans. They can avoid it only to a very limited extent. They cannot flee.
12. Plants are highly adaptable. They are in a permanent state of interchange with their environment. Plants live in a dynamic network of relations and interactions that have a far greater influence on them than for instance on animals.

13. Plants are clearly characterised by a back-and-forth movement between opening up to the environment and withdrawing back to themselves, as well as by rhythmical pulsating in annual and other temporal phases. Plants distinguish themselves through their unique abilities to spread, spanning wide distances and long periods of time.
14. It is therefore our duty to take good care of the environment that plants so strongly depend on, and are determined by.
15. In this context it must be considered that relations between genes and the environment are not single-tracked. Environmental factors can influence genetic expression to such an extent that there can be a stable inheritance of new characteristics without a change in DNA sequences. A reductionistic view focused exclusively on genes is questionable. This urges caution in breeding.

PLANTS AND HUMANS

16. Human existence is directly dependent on plants. Many plants, however, can exist quite well without humans.
17. The relation between plants and humans is both culturally and historically determined and, therefore, as anything cultural, is open to changes.
18. Plants are the basis of our food. Thus our culture cannot be separated from plants. For this reason, plants deserve our respect.
19. Plants are important for human beings' emotional well-being. Their scent, their beauty, their care and tending matter to us. Plants shape our gardens and landscapes.
20. We need to develop a new understanding of the diverse dependencies and bonds that link humans to the world of plants. In everyday life and in art this has already started. But there is much to catch up with on the scientific level.
21. The relationships we have with plants have meaning for our own way of life. The way we treat plants reflects our attitude towards other living beings and ourselves. The value we give to plants is related to our understanding of ourselves.
22. If we perceive plants as machines, this reveals something about ourselves, the observers, not about the plant's nature. This mechanistic view extends itself to all living beings – also to humans.
23. Moral reservations are often lacking when interacting with plants, rather than with humans.
24. It is not fully possible for us to understand the nature of plants scientifically. There are epistemological limits. We stand before the plant as researchers into the infinite.
25. If we approach the plant as an individual being and let ourselves get involved with it, we develop sensitivities and abilities that enable a deeper comprehension of its existence. With and through the plant we experience something all-embracing.
26. Our interaction with plants should not be determined by scientific arguments only. Science is just one path to understanding among others, despite its significance in modern societies. The scientific path is not more important than other paths of understanding.
27. Our relationships to plants occur at various levels: at the scientific, humanistic and artistic levels, at the spiritual, intuitive and religious levels, at the emotional and aesthetic levels, as well as obviously as food, the basis for life. It is necessary to be open to these and further approaches.
28. The new understanding of plant nature requires that all these approaches to knowledge are accepted and used.

29. Plants are extremely flexible and adapt to all sorts of manipulations. At first glance they show no obvious signs of the limits of their vulnerability. It is therefore even more important that we find out together where those limits are. Not-knowing obliges.

Based on these theses, we attain this first list of:

THE RIGHTS OF PLANTS

If we accord rights to plants, this does not mean that we should not eat them or use them in other ways anymore. Just as according rights to animals does not mean excluding them from the food chain. It means much more that we respect the uniqueness of plants and acknowledge limits in our dealings with them.

I. Reproductive rights

Methods and strategies that cause sterility require moral and ethical justification. "Terminator" technology and other methods to produce sterility with the exclusive purpose of making plants available for the maximisation of economic profit contravene this right.

II. Right to independence

Plants are not objects. They shall not be instrumentalised and controlled at will. Their uniqueness must be respected.

III. Right to evolution

Evolution, specifically the adaptability of plants to a changing environment, is based on genetic diversity. If genetic diversity is reduced, the ability to develop is compromised. Thus we must protect both the diversity of species and genetic diversity.

IV. Right to survival as a species

Protection of the existing diversity of species and thus the right of all plant species to survive is guaranteed by biodiversity.

V. Right to respectful research and development

This right requires that researchers and industry should be capable of perceiving the plant's uniqueness, approaching it respectfully. This requires open and interdisciplinary approaches. It excludes treating plants as objects for use without limits.

VI. Right not to be patented

Plants are not inventions. No plant owes its existence to human intervention alone. Patents on plants should therefore be rejected not only for socio-economic reasons, but also for the plant's own sake.

The above-mentioned rights have been formulated by humans. They therefore have validity only to the extent that they can be observed or contravened by human action. No one may be obliged to anything beyond their powers.

Authors:

Florianne Koechlin, Project initiator, biologist, Blueridge-Institute, Basel, author of 'PflanzenPalaver'
Daniel Ammann, PD Dr., Manager of the Swiss working group on genetic technology SAG
Eva Gelinsky, Dr., scientific staff of ProSpecieRara

Benedikt Haerlin, Director of the Berlin office of the Foundation on Future Farming and the „Save Our Seeds“ campaign.

Martin Ott, Farmer, Gut Rheinau, Switzerland, President of the board of FiBL (Research Institute of Organic Agriculture), Frick

Beat Sitter-Liver, Prof. for practical philosophy, University of Freiburg, Switzerland

Werner Stumpf, Dipl.-Ing., Institute for Garden, Fruit and Winegrowing of the University of Natural Resources and Applied Life Sciences, Vienna

Edgar Wagner, Plant physiology, Prof. em., Albert Ludwigs University, Freiburg in Breisgau (D)

Amadeus Zschunke, Dipl.Ing. (FH) Horticulture, Executive Director Sativa Rheinau AG – organic plants and seeds.

In cooperation with:

Günter Altner, Prof. Dr. Dr. Dr. h.c. , Biology and Theology

Nikolai Fuchs, Director, Section for Agriculture, School of Spiritual Science, Goetheanum, Dornach (CH)

Andrea Heistingner, Dipl.-Ing., Office Semina-Kultur-Pflanzen-Konzepte, Schiltern (A)

Christian Hiss, Master Gardener, Eichstetten am Kaiserstuhl (D)

Markus Ritter, Biologist , co-partner, LifeScience AG, Basel

Jürg Stöcklin, Prof. Dr., Botanical Institute of the University of Basel