

I'm not a robot



What a plant knows book

Several books stood out in 2012's reading list, but one that kept drawing attention was "What A Plant Knows: A Field Guide to the Senses" by Daniel Chamovitz. The Chicago Tribune noted it as a book that readers keep coming back to, highlighting its absorbing science and the way it inspires awe for plants. The Wall Street Journal praised the book's ability to change one's perspective on gardening and plant biology, while The Guardian described it as an elegant account that reveals the wonder of plants in a new light. Other reviews from publications like Sunday Times (UK), Nature, American Scientist, Brain Pickings, Herald Sun (Australia), The American Gardener, BBC Wildlife, Booklist, Audubon, Gardens Illustrated, and Science all praised the book's accessible and engaging portrayal of plant biology and the author's ability to make complex science fun to understand. Reviewers noted that Chamovitz's work gently hints at the need for a greater appreciation of plants' complexity and perceptiveness, raising questions about whether they possess some form of intelligence. What a Plant Knows is a captivating book that reveals the fascinating world of plants, their connection to animals, and their ability to respond to their environment. Written by Daniel Chamovitz, this engaging text explores the science behind plant behavior, making it accessible to readers who may not be botanists or scientists. The book features intriguing examples and explanations that demonstrate how shared genomes enable plants to adapt to their surroundings. Gloria M. Coruzzi, a renowned expert in genomics, praises Chamovitz's ability to translate complex scientific concepts into an easy-to-understand language. Michael Malco, author of Ego & Hubris, notes that Chamovitz is a master at explaining the science of botany in a way that resonates with non-experts. Elisabeth Tova Bailey, author of The Sound of a Wild Snail Eating, describes how reading What a Plant Knows has transformed her perspective on plants, making her appreciate their sensory attributes and shared genes with animals. Professor Stephen D. Hopper, Director of the Royal Botanic Gardens, Kew, commends the book for its lively and eloquent presentation of scientific research. The book also offers a surprising revelation: plants do not feel pain or suffer in the same way as humans when harvested. This perspective may provide relief to vegetarians, but it also highlights the importance of respecting plant life. Daniel Chamovitz, Ph.D., is a respected researcher with expertise in plant biology. His work has been published in leading scientific journals, and he has lectured at universities worldwide. What A Plant Knows is an intriguing exploration of plant consciousness, backed by new research on plant biology. Kirkus notes that the book provides a fascinating explanation of how plants survive despite their inability to move from one site to another. The Chicago Tribune praises Chamovitz's ability to make complex concepts engaging and shareable. Plants continue to fascinate us with their unique abilities, from sensing their surroundings to remembering past experiences. As biologist Daniel Chamovitz highlights, this knowledge can be attributed to a combination of plant senses and forms of memory. Rather than being mere stationary organisms, plants are capable of detecting light, temperature, touch, and even the presence of predators. This understanding is not only an eye-opener for our perception of plants but also encourages us to reevaluate their place in nature. By exploring the intricate mechanisms behind plant behavior, Chamovitz's book provides a compelling argument that plants "know" more than we often give them credit for. With its engaging narrative and accessible language, this book is perfect for anyone curious about the world of botany and our connection with it. What a Plant Knows by Daniel Chamovitz is a groundbreaking book that reveals the intricate relationships between plants and their environments. By exploring the shared genetics of both plants and animals, the author sheds new light on how plants respond to their surroundings. This fascinating read will transform your perception of plants, making you appreciate their sensory capabilities and complex behaviors. Author Daniel Chamovitz resides in Israel with his wife and three children. He is the renowned author of "What a Plant Knows: A Field Guide to the Senses," which delves into the world of plant perception, including their ability to hear and taste. The book provides an updated edition on plant biology, offering new insights for nature enthusiasts and lovers of all things vegetal. The biologist explores how plants experience their surroundings, from perceiving colors to maintaining schedules, and now, surprisingly, even hearing and tasting. This comprehensive guide offers a rare glimpse into the lives of plants we often overlook, such as grass beneath our feet, flowers in our gardens, and trees we climb. Chamovitz's career is marked by groundbreaking research in plant biology, with his work published in leading scientific journals. He serves as the Director of the Manna Center for Plant Biosciences at Tel Aviv University in Israel. Reviews of "What a Plant Knows" are overwhelmingly positive, with many readers praising the book for its fascinating content and accessibility. Critics note that while some may initially perceive the book as anthropomorphizing plants' intelligence, it actually aims to increase awareness of their unique senses and survival mechanisms, such as seeing colors, smelling scents, hearing sounds, tasting chemicals, remembering past experiences, and responding accordingly. Readers have praised Chamovitz for making complex scientific concepts easy to understand, showcasing the intriguing world of plant biology. Despite some minor criticisms regarding editing or sentence structure, reviewers agree that "What a Plant Knows" is an enlightening read that challenges preconceptions about plants' capabilities. The author discovered a fascinating book about how plants sense and process information, despite lacking a brain or central nervous system. This sparked their interest in exploring the similarities between humans and plants. The text follows the author's personal experience with their newborn niece, Maleigha, who was born with anencephaly, but has some brain stem function. The author draws parallels between Maleigha's limitations and those of plants. Chamovitz explains how plants can detect light, smells, touch, and distinguish colors despite their lack of a nervous system. Plants are "acutely aware of the world around them" and have a form of memory that allows them to respond to past experiences. The author wonders if anencephalic humans could possess similar abilities. One of the most fascinating aspects of nature is how certain organisms can "know" things and react accordingly. For example, some plants can release chemicals to defend themselves when they sense a threat. If you're interested in learning more about this, I highly recommend reading this book. It's a concise yet captivating exploration of what we currently know about plants, as well as the historical experiments that led us to those discoveries. What's truly remarkable is how much humans have learned about the world around us. We've figured out how trees remember being touched, and how certain insects can detect even the slightest changes in their environment. For instance, some species of ants can recognize individual members of their colony, even when they're covered in soil. But what's even more impressive is the way that these organisms are able to adapt to their surroundings. Take, for example, the Venus flytrap, which has a unique short-term memory mechanism. When it senses an electric potential from an insect touching its leaves, it can trigger a chemical response that captures the insect in seconds. This ability is truly remarkable, and it raises questions about the nature of consciousness and intelligence in the natural world. Can plants really "remember" things, or are they simply responding to their environment in complex ways? And what does this say about our own place within the natural world? These are just a few of the many fascinating questions that this book explores. Bitkilerin Beş Duyusu: Nefes Alınca Kadar Var mı? !!! Yirmi beş saniye içinde yok olana kadar, iyon konsantrasyonunda bir artış olarak depolanır. Bu süre içinde ikinci bir aksiyon potansiyeli kapanın orta bölümüne ulaşırsa, biriken yük ve iyon konsantrasyonu eşliği geçer ve kapan kapanır. Aksiyon potansiyelleri arasında çok fazla zaman geçerse, bitki ilk aksiyon potansiyelini unuttur ve kapan açık kahr. Venis sinek kapanındaki bu elektrik sinyali (ve bu anlamda diğer bitkilerdeki elektrik sinyalleri) insanların ve anderen bütün hayvanların nöronlarındaki elektrik sinyallerine benzer. Sinek kapan bitkisinin nöronlarındaki ve yapraklardaki sinyaller, hücreden elektrik sinyali geçerken hücre zarında açılan iyon kanallarını ketleyen ilaçlarla engellemek mümkündür. Volkov deneyden önce bitkilerin insan nöronlarında potasyum kanallarını ketleyen bir kimyasala maruz bırakınca, dokumduğunda veya gerekli elektrik yükü alındığında kapanın kapanmadığını gördü. Plants are surprisingly perceptive and can perceive their surroundings through different senses like light, touch, smell, sound, and even sight. However, the extent of their perception is not fully explored in Chamovitz's book. The author discusses various experiments that demonstrate how plants respond to these stimuli, including a famous experiment by Darwin that shows how plants sense light at its tip. A more horticultural approach would have been interesting, focusing on the everyday care-taking of plants and how our understanding of plant senses can be applied in real-life situations. In contrast, Michael Pollan's book "The Biology of Desire" provides a deeper exploration of this topic. Chamovitz outlines human concepts of sensory perception and draws parallels with plant biology. He also touches upon questions of plant intelligence and self-awareness, although the latter remains largely debunked. The book concludes by observing that humans have a unique ability to remember plants, whereas plants themselves do not possess memory. Personally, I find the perspectives of Robert Frost, Mary Oliver, or Martha Nussbaum on trees more captivating than this book. They offer a deeper understanding of our connection with nature and how it can make us better human beings. Plant Perception: A Book Review The book on ecology and environment discussed here is indeed popular among scholars. Particularly the section discussing plants' senses stood out as intriguing. According to Chamovitz, plants don't react to sound or speech like humans do. They think they see, hear, smell, and remember things, thanks to their surroundings. These abilities help them survive. However, if they never experience something, they won't remember it either. On the other hand, we can recall specific memories of trees because our brains allow us to. John Muir once said that trees seem content with where they are, but he also noted that like humans, they travel far and wide in response to every wind. Some authors wondered what the "story of the trees" would be if they could speak. Maud van Buren expressed her curiosity about this idea. I found the book engaging as an introduction to plant chemical ecology. My only issue was that it didn't provide enough scientific explanation, which surprised me since I have a background in horticulture science. Nonetheless, I think everyone should read this book because few people realize plants are sophisticated organisms with complex behaviors. Book review: A fascinating journey into plant perception Book isn't overly complex or chock full of "things never known". It *is* brimming with the fascinating! It is very well written and creative and fun. Bonus: It's also an entertaining book to read aloud to kids who are interested in plants. Mine heard the first chapter and would like to hear more. I thank the scientist author for fresh and creative writing that made us ponder and smile. A groundbreaking book that delves into the world of plant perception Sú tu. Tvory, ktoré sa nebadane pohybujú medzi nami. Sledujú nás, aj keď nemajú oči, Plojujú, aj keď nemajú uši. Kaleráby. A redkovky. A tulipány. A ďalších 400 000 druhov rastlín, ktoré toho skryvajú viac, ako by ste si boli kedy pomysleli. Yüzümde sürekli gülümseyle okuduğum bir kitap oldu. Bitkilere has görme, koklama ve hatırlama (ki epigenetik kavramını daha detaylı okuma isteği oluşturdu bende - "anının varlığını yalnızca tek bir organizma içinde bir mevsim boyunca değil, nesilden nesile sürdürmesini sağlama" ile ilgili) konularına dair safсата yapmayan, kaynaklara dayalı, güzel bir bilim okuması oldu. Deve tabanını ara sıra öpmenin iyi bir fikir olmadığını öğrenmiş oldum, daha ne :) Cosa una pianta vede, annusa, prova, ascolta? Quanto è consapevole del luogo in cui si trova? Interesting book that outlines briefly the scientific information we have concerning what a plant "feels, sees, hears, thinks, and smells". Those terms are in quotations for a reason. We can only perceive these aspects of a plant's sensory perceptions through our own limited human sensory perceptions. My favorite part of the book was the chapter on what a plant feels (in particular how they feel gravity and their internal circummutational dance). The book was worth it for the chapters on light and gravity and how plants respond to these universal realities. Lysenko's discovery that winter wheat can be artificially hardened without actual exposure to cold temperatures challenged the traditional view of plant development. Plants are capable of remembering day length and adjusting their flowering patterns accordingly. Epigenetics plays a role in determining whether plants need to harden before flowering, allowing them to adapt to different environments. Plants possess glutamate receptors similar to those found in humans, which enable neural communication, memory formation, and procedural memory. However, plant consciousness is distinct from human consciousness, consisting only of procedural and semantic memories. This book offers a fascinating exploration of plant life forms and their unique abilities. The author provides a concise introduction to scientific research that underlies the discussion, making it accessible to readers with varying levels of biological knowledge. The reviewer read "What a Plant Knows" and found it to be an engaging and accessible book that delves into the fascinating world of plant senses and awareness. Despite not having a biological background, the reviewer appreciated how the author carefully explains complex scientific concepts in a way that's easy to understand. The book is divided into sections covering topics like sight, smell, touch, proprioception, and memory, with each chapter starting with a brief overview of how humans experience these senses before moving on to discuss how plants perceive them differently. The reviewer enjoyed the author's approach, which avoids oversimplifying scientific concepts or making grand claims without evidence. The book's length (around 150 pages) is also praised as being just right - long enough to provide a thorough introduction but not so long that it becomes tiresome. Overall, the reviewer gives the book four out of five stars, recommending it for anyone interested in learning about plant biology in an entertaining and informative way. The author initially struggled to appreciate botany, but after starting to read a book on the subject, they found it to be an engaging page-turner. As a vegetarian, they were curious to learn how plants perceive their environment. However, instead of convincing them to adopt a more plant-based diet, the book shed new light on the world of plants in their pots. The author discovered that simply petting a plant accelerated its demise, suggesting that plants may view human interaction as intrusive and unwelcome. This idea resonated with the quote by Thich Nhat Hanh, which highlights the dangers of unbridled love for something we cannot fully understand or relate to.