# The Miracle of Plant Life: A Scientific, Philosophical, and Theological Commentary

#### **Abstract**

Life on Earth owes an immense debt to the humble world of plants – from the tiniest seed to the tallest tree. Yet human beings often suffer from an "anesthesia of familiarity," becoming numb to the everyday miracles in front of us 1. This commentary examines several Quranic verses that highlight the fertility of the earth, the greenery of plant life, and the abundance of fruits and crops as signs of divine wisdom. We explore these verses through scientific, philosophical, and theological lenses. Scientifically, plants exhibit astonishing processes (such as seeds lying dormant for centuries and then springing to life) that validate the Quran's vivid imagery. Philosophically, the cycle of growth and decay in greenery invites reflection on life's transient beauty and our tendency to take the commonplace for granted. Theologically, the Quran uses the miracle of plant life as evidence of a purposeful Creator providing sustenance and resurrecting life from dead earth. Throughout, insights from naturalists like Sir David Attenborough and others will help rekindle our appreciation for the "green inheritance" that sustains us. In sum, by reexamining the Quran's portrayal of verdant life on Earth, we hope to shake off our complacency and rediscover a sense of wonder – and responsibility – toward the living world that feeds both body and soul.

#### Divine Origination: The Split Seed of Life (Quran 6:95)

One of the most striking Quranic images of plant life is the splitting of the seed, a metaphor for the origin of life. "It is God who splits open the seed and the fruit stone: He brings out the living from the dead and the dead from the living – that is God – so how can you turn away?" (Quran 6:95) <sup>2</sup> . In this single verse, the Quran encapsulates the awe-inspiring cycle of life and death through the example of a seemingly lifeless seed that germinates into a living plant <sup>3</sup> <sup>4</sup> . Classical Islamic exegesis emphasizes that only the divine power of Allah could initiate this process: "Allah causes the seed grain and fruit stone to split and sprout in the ground, producing various types, colors, shapes, and tastes of produce" <sup>5</sup> . From a theological perspective, this transformation is a sign of God's creativity and control over existence – He brings forth living plants from inert seeds and, conversely, can bring life from death or cause the living to perish <sup>4</sup> . The verse's closing challenge ("So how can you turn away?") is a call to reflection: if such miracles abound, turning away from the truth of the Creator is irrational <sup>6</sup> .

Scientifically, the **germination of a seed** is nothing short of miraculous. Packed within each tiny grain is an embryo and a store of nutrients, all sealed in a protective coat. Modern biology has revealed that many seeds enter a state of **suspended animation** – dormancy – in which life processes nearly grind to a halt, allowing seeds to remain viable for years or even centuries <sup>7</sup> <sup>8</sup>. For example, scientists in 2005 sprouted a preserved date palm seed approximately 2,000 years old – the oldest seed to ever germinate with human assistance <sup>9</sup>. Such discoveries confirm that within a "dead" seed lies latent life waiting to burst forth, beautifully illustrating the Quran's statement "bringing forth the living from the dead." The seed's ability to "wait" for the right conditions is an adaptation that showcases wisdom in nature: as one scientific review summarized, by drying out and pausing metabolism, **seeds can remain viable for extraordinarily long** 

**periods (in some cases** centuries) <sup>8</sup> <sup>10</sup> . When moisture and warmth finally arrive, the seed "awakens" and **splits open**, sending forth a tender shoot. Time-lapse photography has even captured how a sprouting seedling **cracks and heaves aside clods of soil**, precisely matching the Quran's imagery of God splitting the seed and seed-shell to bring forth new life <sup>11</sup> .

Philosophically, the seed's journey from dormancy to vitality can inspire profound reflection. It is a **daily miracle we often take for granted** – every grain of rice or kernel of wheat we eat was once a dormant seed that sprang to life. The Quran's emphasis on the split seed urges us to move past our familiarity and **rediscover wonder**. As physicist Richard Feynman once remarked, appreciating the intricate cellular "machinery" inside a flower or seed "only adds to the excitement, the mystery, and the awe" we feel toward it <sup>12</sup> <sup>13</sup>. In other words, understanding how a seed works should deepen, not dull, our sense of amazement. The seed teaches the value of patience and potential – a **life-in-waiting** that appears insignificant or dead, yet contains entire forests within. For believers, it also becomes a **metaphor for resurrection**: if the Creator can bring forth a living plant from a dead grain, He can surely bring forth life again on the Day of Resurrection <sup>14</sup>. Thus Quran 6:95, through a simple seed, connects botanical science with spiritual insight: life emerges by divine command from sources we might overlook, so we must not be blind to the **signs in the soil**.

## Rain and Soil: Revival of the Fertile Earth (Quran 80:25–27 & 86:11–12)

When we shift our gaze from the seed to the soil, the Quran continues the theme of life emerging from lifelessness. "We pour down water in abundance, then We split the earth in clefts, and cause grain to grow therein" (Quran 80:25–27) <sup>15</sup>. This passage from Surah 'Abasa' vividly depicts the chain of events that produces food: rainfall saturates the ground, the hardened earth cracks open, and sprouting plants push forth, yielding vital grains. Another verse swears by "the sky which returns [rain] and the earth which cracks open [with new growth]" (Quran 86:11–12) as an oath to the truth of God's message <sup>16</sup> <sup>17</sup>. In both cases, water is the catalyst that turns barren dust into fertile soil. Theologically, the Quran often presents this rain-driven revival of dead earth as a self-evident sign of divine mercy and power. No human effort can independently force dry land to bloom – it relies on the grace of the heavens. As one commentary notes, these verses subtly argue that the same God who "sent down water from the sky" and brought life from the ground can just as easily bring forth human beings from their graves in a future resurrection <sup>14</sup>. The annual renewal of earth's greenery is thus a "mini-resurrection" before our eyes <sup>18</sup>, intended to remind us of the greater Resurrection to come.

From a scientific perspective, the transformation triggered by rain is perfectly accurate and profoundly illustrative. Desert ecologists testify that **parched earth can spring to life** after rainfall, as seeds and plant embryos lying dormant in the soil sense moisture and immediately begin to germinate <sup>19</sup> <sup>20</sup>. Modern time-lapse footage reveals the ground visibly **bulging and cracking as seedlings emerge**, confirming the Quran's description of Allah "splitting" the earth for plants <sup>11</sup>. The soil, which seemed dead and static, becomes **animated with microbes, worms, and roots** once watered – a whole hidden world comes alive. Water not only softens the earth mechanically, but also carries dissolved oxygen and nutrients into the seed's reach, while washing away inhibitors. The result? "Life pushing forth" from every fissure <sup>21</sup>. In agronomy, it is well known that seeds may remain viable in dry soil for years waiting for sufficient rain. In extreme cases, certain desert wildflowers and grasses germinate *only* after rare downpours, carpeting valleys in blossoms where before there was only dust. Such phenomena underscore the Quran's point: a

finely calibrated interplay of water, soil, and biology is required for grain to grow – a balance set by the Creator and "something man cannot truly engineer on his own" <sup>22</sup>. Indeed, **water is life**, and the Quranic phrase "We pour down water, then split the earth" elegantly summarizes how **rainfall rejuvenates ecosystems**.

Philosophically, these verses invite us to reflect on **hope and renewal**. The image of the **cracking earth** can be seen as nature's struggle – the young shoot must break through hard ground to reach light. It is a powerful metaphor for overcoming adversity by the will of God. Just as the earth's surface breaks to allow new life, so can human hearts hardened by habit or despair crack open when watered with divine guidance. There is also a humility lesson: "He splits the earth" reminds us that what we consider "our" cultivable land is only made arable by forces beyond our control (rain from above, germination below). We are simply beneficiaries of an already-working system. Surah 'Abasa' actually begins this section by saying, "**Let man look at his food**" (80:24), prompting us to trace back the origin of every meal <sup>23</sup>. By observing the rain-tograin process, we realize our utter dependence on nature's finely tuned cycles – and thus on the One who designed them. This should spark **gratitude and humility** rather than pride. How often do we eat bread without considering the downpour that raised the wheat, or drink coffee without thanking the soil that nurtured the beans? The Quran's reminder is timeless: "consider the origin of your food" – it is a daily miracle, "a **proof of the deliberate Creator"** sustaining us <sup>24</sup>.

## Verdant Provision: Gardens, Fruits, and Every Kind of Plant (Quran 79:30–31, 27:60, 31:10)

Once the seed has sprouted and the earth is lush, the Quran directs our attention to the profusion and variety of plant life that flourish by divine bounty. We read that Allah "spread out the earth" and "brought forth from it its water and its pasture" (Quran 79:30-31) 25 - in other words, He shaped the earth as a hospitable home, complete with water sources and vegetation for all creatures. The term "pasture" (mar'ā) in Quran 79:31 is traditionally interpreted broadly: not only as fodder for grazing animals, but "the whole range of plant life" used by both humans and beasts 26. Grass for cattle, grains for humans, fruits for birds - all are encompassed in this single word, painting a picture of Earth's surface as a vast, nourishing carpet of green. Another verse asks rhetorically: "Who is it who sent down water from the sky for you, whereby We cause to grow gardens of joyful beauty - whose trees you could never cause to grow?" (Quran 27:60) <sup>27</sup>. Here the Qur'an invites us to behold cultivated gardens, brimming with charm and delight, fed by rainwater. The verse pointedly reminds us that however much we toil in plowing or planting, the actual growing of a tree - the mysterious conversion of soil, water, and sunlight into wood, leaves, and fruit - is beyond human power to initiate without the divinely crafted laws of nature 27. No matter how advanced our science becomes, we cannot invent a seed or command it to sprout; we rely on life's existing toolbox, which is ultimately a gift. Thus, Quran 27:60 concludes by asking if there could possibly be any god besides Allah who does this, driving home the point that these natural marvels have one source.

Verse 79:31 is in the context of the creation of the heavens and earth and mountains as shock absorbers for our planet.

Together, verses like 79:31 and 27:60 highlight two themes: **provision and beauty**. The earth's plant cover is both practical sustenance and aesthetic delight. The phrase "ḥadā'iq dhāta bahjah" in 27:60 means **gardens of splendid beauty** <sup>29</sup> – beyond mere survival, the natural world contains *joyous beauty* for us to admire. Indeed, **much of the natural beauty we enjoy comes from greenery – flowers and fruits – yet we often** 

take them for granted 1 . Scientists estimate around 391,000 species of vascular plants are known, with roughly 369,000 being flowering plants (and new species discovered every year) 30 . This botanical diversity is staggering; the Quran frequently alludes to the diversity of plant forms and the delicious variety of their fruits as intentional signs. "And We sent down rain from the sky, and caused to grow thereby plants of every beautiful kind" (Quran 31:10) proclaims one verse 31 . Another verse describes how from the same water, different regions yield diverse produce: "date-palms and vines and fruits – similar [in basic form] yet varied in taste. Behold their fruit when they bear" (Quran 6:99, paraphrased). The underlying message is that such variety is neither accidental nor trivial: it is a deliberate artistry of the Beneficent. Add to this the miracle of growth in trees – how a tiny seed becomes a towering orchard over years – "and you have a secret the human mind cannot fathom: 'You could have never caused such trees to grow." 32 We are meant to enjoy the sweetness of a mango or the fragrance of a flower, but also to ask how these wonders came to be at all.

Scientifically, the earth's verdure exemplifies a complex, interdependent system finely tuned for life. Plants not only feed herbivores and ultimately carnivores; they also produce oxygen, fix carbon, retain soil, and even influence climate. Sir David Attenborough has noted that "plants...we destroy at our peril. Neither we nor any other animal can survive without them", urging that we "cherish our green inheritance, not pillage it – for without it, we will surely perish." 33 . From the largest rainforest to the smallest algae, plants run the planet's life-support system – truly, "Who runs the world? Plants," as one science writer quipped . Consider the simple act of a bee pollinating a blossom: this ensures fruits and seeds will form, feeding countless creatures. Without the plant-pollinator partnership, ecosystems would collapse and food chains would starve. The Quran's verses gently push us to recognize that the entire green tapestry of Earth is a divinely arranged sustenance network: "We cause gardens to grow... provision for you and your cattle" (Quran 80:31-32) 35 36 . Everything from "dense orchards" to "fruits and fodder" is listed as part of a comprehensive providence for all living beings 37 36 . In a time when we face deforestation and climate change, these ancient verses ring with new relevance – a reminder that our survival is braided with the fate of plants. We neglect or abuse the botanical world only at great cost to ourselves, for it is an entrustment from the Creator for our benefit.

Philosophically, the richness of Earth's flora teaches gratitude and wonder. Each fruit, each harvest is a **gift and a sign**. As the Quran says, "Look at their fruit when they ripen – in these are signs for those who believe" (6:99). Many spiritual teachers have reflected that a single leaf can reflect the wisdom of the cosmos. The poet William Blake saw "a world in a grain of sand and a heaven in a wildflower," exhorting us to find infinity in the small things of nature. The **anesthesia of familiarity** may cause us to walk through an orchard indifferent to the miracle hanging on every branch. But when we pause to truly "see" a tree – how it draws water from roots to twig, turns sunlight into sugar, bursts into blossoms and then sweet fruit – we rekindle a childlike awe. The Quranic narrative of gardens and rain invites us to be **active appreciators** of nature's beauty and bounty, seeing in it not just resources to consume but ayāt (signs) to contemplate. A well-tended garden can even be a **spiritual parable**: with patience, care, and the right conditions, dry land becomes a lush sanctuary. In our own lives, barren periods can give way to abundance when nurtured by faith and effort. Thus, the **garden is both provision and parable**, sustenance and symbol. Little wonder that Paradise itself is described in the Quran as Jannāt (gardens) beneath which rivers flow – the ultimate fulfillment of the greenery we cherish here in earthly life.

#### The Cycle of Life and Decay: Pasture to Stubble (Quran 87:4–5)

Not only does the Quran direct us to lush life, it also pointedly reminds us of the **ephemeral nature** of that life. In Surah *Al-A'lā*, after glorifying God's creative power, the Quran says: "[He] who brings out the **pasture**, then makes it a blackened stubble" (87:4–5) <sup>38</sup>. In just two verses, we witness the full lifecycle of herbaceous plants: fresh, green pasturage sprouts and spreads – only to wither, dry up, and darken into debris. The transformation from vibrant green to black stubble is an evocative image of impermanence. Theological commentators note that this depiction "purports to depict the Divine wisdom in vegetation: He grows the green vegetation and then gradually turns it into black stubble, losing its freshness" <sup>39</sup>. This cyclical process contains a dual lesson. First, it **provides for creatures** – the fresh pasture sustains animals (and indirectly, humans) as long as it lasts. Then, when it becomes dry stubble, it might appear "useless," but in reality the withered plants return to the soil, enriching it as organic matter (or providing fuel and material for humans). Second, it **humbles the observer** – even the most beautiful field of flowers will eventually fade and crumble. The Quran often uses this analogy for the transient joys of worldly life: "Know that the life of this world is but play and amusement... and like vegetation after rain whose growth delights the tillers, then it withers and you see it turn yellow, then it becomes chaff" (57:20). We are meant to remember that **all living things, including ourselves, have a finite season of bloom**.

From a scientific perspective, the conversion of green pasture to black stubble is part of Earth's **nutrient recycling**. When plants die back, decomposer organisms (bacteria, fungi, insects) get to work, breaking down stems and leaves into humus. This in turn fertilizes the soil for the next generation of growth. In nature, nothing is truly wasted: yesterday's stubble feeds tomorrow's seeds. Attenborough, in examining ecosystems, observed that if it weren't for tiny organisms recycling waste, "our fields and pastures would be covered with dung and carrion", and plants would not be pollinated nor regrow <sup>40</sup>. The seemingly unsightly stage of black stubble is actually **critical for new life**, preventing the buildup of dead matter and returning carbon and minerals to Earth's cycle. Thus, even the Quran's imagery of dark scum on a flooded field or dried stalks on a plain resonates with ecological truth – these are **nature's way of renewal**. It's noteworthy that Quran 87:5 uses the term *ghuthā'an aḥwā* which one commentary explains as scum or stubble that has blackened <sup>41</sup>, possibly alluding to the decaying biomass after a flood or harvest. Premodern people would have seen this regularly and perhaps thought of it as lifeless waste, but the Quran urges them (and us) to discern wisdom in it: **the same Providence that produces green abundance also decrees its return to dust**, completing a circle.

Philosophically and spiritually, the pasture-to-stubble cycle is a memento mori – a reminder of death following life. Just as lush meadows take on a ghostly aspect in winter, human strength and beauty eventually yield to age and frailty. The verse "He brings out the pasture, then makes it stubble" implicitly "directs man's attention also to his own end", as the commentary of Ma'ariful-Qur'an puts it 42. This is not meant to instill despair, but perspective. We rejoice in the springtime of life, but should not forget the autumn. Religiously, this humbling realization is intended to anchor us, so we do not become arrogant during our bloom nor utterly desolate during our decline. For believers, the withered plant is also a sign of hope beyond apparent death. The same Surah Al-A'lā that mentions the black stubble goes on to reassure the Prophet "Me will make you recite, and you will not forget" (87:6), hinting that divine revelation and guidance persist even as worldly things fade. In a broader sense, just as the land revives after being "dead," so the promise of resurrection implies that human death is not the end of the story. Our bodies may become dust like the dry chaff, but the One who "brought forth the green pasture" can revive life from the dust anew.

In sum, Quran 87:4–5 brings a necessary **thematic balance**: it tempers our wonder at the miracle of plants with an awareness of their limits. The miracle is *no less wondrous* for being temporary – in fact, its temporality is part of its teaching. The withering of plants teaches us **detachment and wisdom**: to enjoy blessings without clinging to them, to prepare for the phases of life, and to seek the everlasting garden of the hereafter. As one might say, the autumn field is as eloquent a teacher as the spring field. Each has its role in the grand lesson plan of nature set by the Most High.

#### **Rediscovering Wonder: From Familiarity to Appreciation**

Having explored the Quranic insights on plant life – from seeds and rain to gardens and decay – a unifying lesson emerges: the natural world is full of signs (āyāt) pointing beyond itself, if only we pay attention. The Quran deliberately draws our focus to everyday phenomena (food, rain, grass) precisely because we tend to overlook them under the anesthesia of familiarity (1). The challenge posed to us is to shake off that numbness and see with fresh eyes. In our modern age, we have additional tools to aid this awakening: science and documentary film can slow down, speed up, or magnify natural processes, allowing us to witness the "invisible" dramas of plant life. David Attenborough opened his series The Private Life of Plants by noting that plants face many of the same struggles as animals – for food, territory, reproduction – but "we're seldom aware of these dramas because plants live on a different time-scale." (43) We might walk by a tree and perceive it as static and passive. But time-lapse photography reveals vines twisting and groping for support, or a forest floor where seedlings race each other for a patch of sunlight when a gap opens in the canopy 44 45. Attenborough marvels that nature's "writers" produce scripts of interdependence and ingenuity far more complex than any fiction [46] 47]. For instance, some acacia trees communicate via chemical signals to warn their neighbors of browsing animals, and certain orchids precisely mimic female insects to trick male pollinators - stratagems evolved over eons, largely unseen by human eyes. When we learn facts like these, we are doing exactly what the Quran implores: "consider" and "look" deeply at how the world around us works, so that our appreciation of the Creator's work increases.

Our inquiry into plants also reinforces a sense of gratitude and responsibility. If one accepts that these green blessings are deliberate gifts, the appropriate response is to be thankful and to be a good steward of them. The Quranic worldview sees humans as caretakers (khalīfa) of the earth, not its tyrants. The verses we discussed often pair human benefit with a reminder of God's sole authority, implying that we should neither abuse the gift nor forget the Giver. Sadly, as Attenborough observed, "ever since we arrived on this planet as a species, we've cut [plants] down, dug them up, burnt them and poisoned them... Today we're doing so on a greater scale than ever" 33. This heedless pillaging of forests, wetlands, and other plant ecosystems can be seen as a direct result of failing to heed the Quran's call to reflect. When one is spiritually and intellectually anesthetized, a tree is just timber, a field just real estate, a flower just decoration. But when one is awake to the sacred harmony of life, a tree becomes a sign of divine life-giving, a field of grain becomes a sign of divine provision, a flower a sign of divine beauty. The theological term for nature in Islamic discourse is often "ayat Allah" - the signs of God. This nurtures an ethic: you would not gratuitously destroy a sign pointing to your beloved; rather, you honor it and follow where it leads. Attentiveness to the miracles of plants can thus cultivate an ecological ethic grounded in faith. We come to "cherish our green inheritance" as Attenborough urges 33, understanding that caring for it is part of our duty to the Creator and to future generations.

In rediscovering wonder, we might also find a bridge between scientific and spiritual consciousness. Far from being at odds, the two can reinforce each other. As Feynman eloquently stated, knowing the cellular intricacy of a flower "only adds to the excitement, mystery and awe" <sup>13</sup>. The Quran anticipated this

integrated vision by repeatedly directing human reason ('aql) to study nature and human conscience to respond in awe. The antidote to the anesthesia of familiarity is **mindfulness and curiosity**. We can practice noticing the slice of tomato on our plate – how many weeks of sunlight, how much rain, how many green leaves went into its redness? Notice the paper we write on – it was once part of a tree's living circulatory system, carrying water up to its crown. When the Quran says, "Then let man look at his food" <sup>23</sup>, it is really saying: Wake up! There is a universe of wisdom in the commonplace. Every apple or ear of corn is, in its own way, as miraculous as the parting of a sea – if we would only contemplate the chain of events and forces behind it. Muslim sages like Imam Al-Ghazali have counseled that deep reflection on the "ordinary" signs of God in creation is a path to knowing God. In that sense, studying a seed or a flower can be a form of worship, echoing the Quranic sentiment that "in the alteration of night and day and the growth of what the earth sprouts… are signs for a people who reason".

#### Conclusion: The Garden of Signs and the Call to Stewardship

Throughout this commentary, we have seen that the Quran's verses on earth's fertility and greenery weave a rich tapestry of meaning. **Scientifically**, they align with astonishing accuracy to natural phenomena: the dormancy of seeds, the role of rain in germination, the diversity of plant types, and the ecological cycle of growth and decay. This concordance enhances our appreciation of these verses – it is as if the "silent teaching" of nature and the "spoken teaching" of Scripture are pointing to the same truths. **Philosophically**, the verses challenge us to transcend habitual blindness and embrace wonder. The "miracle of the flowering plants" is not a one-time event but a continuous reality; every garden and farm is a theater where divine signs unfold daily. We are prompted to cultivate an attitude of **grateful astonishment**, much like a philosopher or poet who can find the infinite in a humble blade of grass. **Theologically**, the Quran uses plant life to affirm God's oneness, wisdom, and mercy. No rain, no growth – so thank the One who sends the rain. No seed, no harvest – so worship the One who splits the seed. Human beings could not survive without the green world, yet the green world carries on just fine without us, doing the bidding of its Lord. This humbling realization leads to the Quran's rhetorical question: "Is there any god alongside Allah?" (27:60). The obvious answer is no – the unity of nature bespeaks the unity of its Originator 48 49.

Finally, all these insights converge on a call to **thematic action**: stewardship rooted in awe. If plant life is a clear miracle, then preserving and respecting it is not just an ecological imperative but a spiritual duty. The Quranic vision of an ideal human is one who recognizes blessings and acts as a just trustee of the earth. In a time when deforestation, habitat loss, and climate shifts threaten the balance of creation, such guidance is ever more relevant. "We destroy plants at our peril... The time has now come for us to cherish our green inheritance, not to pillage it – for without it, we will surely perish." <sup>33</sup> These words of a modern naturalist echo the Quranic ethos closely. Our response to the miracle of plants should be **reverence and responsibility**. This means engaging in behaviors that protect the environment, from planting trees and conserving forests to supporting sustainable agriculture and reducing waste. It also means internalizing values of simplicity and gratitude – as the Quran implies when it says "eat of the fruits when they ripen, but give due alms on the day of harvest, and do not waste" (6:141). Such injunctions tie the enjoyment of nature's bounty with ethical conduct towards others and towards nature itself.

In closing, the Quranic verses about the fertile earth, green plants, and fruits serve as a perennial reminder that we live amid continuous miracles. What might seem ordinary – a patch of green grass or a basket of fruit – is actually extraordinary when seen through the tri-focal lens of science, philosophy, and faith. **The earth is fertile with meaning**, ripe with signs for those who take the time to observe and reflect. By combining the revelations in scripture with the revelations in nature, we come to a fuller understanding of

our world and our role in it. We learn that wonder is the beginning of wisdom, and that wisdom, in turn, demands responsible action. Like a well-tended garden, let us nurture both our understanding and our environment, so that gratitude blooms and the "miracle of plants" continues to sustain and inspire humanity for generations to come.

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