

# Banana Cultivation on PQNK (PICNIC)

Paedar Qudratti Nizam Kashatqari

*Regenerative & Sustainable Pristine Organic Farming System*



## Abstract

Banana is conventionally considered a high-input, climate-sensitive crop, dependent on heavy fertilization, frequent irrigation, and controlled environments. This knowledge paper documents and explains successful open-field banana cultivation under the **PQNK (PICNIC)** system in the foothills of **Nainital, India**, an area exposed to **extreme winter cold and extreme summer heat**.

Through **soil regeneration, permanent mulch cover, biological water regulation, and zero soil disturbance**, PQNK creates a self-buffering soil environment that stabilizes temperature, moisture, and nutrient availability. The success of this banana plantation demonstrates that **banana is not climate-limited, but soil-limited**. When soil biology is restored, banana becomes resilient, productive, and low-cost—even in climatically challenging regions.

## 1. Site Context: Nainital Foothills

The documented banana farm is located in the foothills near **Nainital**, a region characterized by:

- Cold winters with frost risk
- Hot summers with high evaporation
- Heavy monsoon rainfall
- Sloping land and erosion pressure

**Under conventional systems, banana in such regions:**

- Suffers winter damage
- Collapses in summer heat
- Requires constant external inputs

Yet under PQNK, the banana plants remain **healthy, upright, and productive**, confirming the system's ecological strength.

## **2. PQNK Principle Applied to Banana**

**PQNK does not grow crops.**

**PQNK grows soil that grows crops.**

Banana success under PQNK is the outcome of:

- Stable soil temperature
- Continuous biological activity
- Balanced water and mineral availability
- Zero chemical shock

Banana, being a **high biomass and high transpiration plant**, becomes an ideal indicator crop for soil health.

## **3. Mandatory ACI → PQNK Conversion (Non-Negotiable)**

Banana on PQNK cannot succeed unless **all four conversion steps** are completed.

### **3.1 Hardpan Breaking (Once Only)**

Deep subsoiling restores:

- Deep root penetration
- Drainage during monsoon
- Oxygen availability

Without this step, banana roots remain shallow and plants topple.

### **3.2 Soil Detoxification with Water**

One deep irrigation is applied to:

- Leach accumulated salts
- Flush chemical residues
- Reset soil chemistry

This prepares the soil for biological recovery.

### 3.3 Permanent Raised Beds (If Applicable)

Where terrain allows:

- Soil is shaped once
- Traffic confined to furrows
- No re-compaction

Banana thrives in **undisturbed root zones**.

### 3.4 Roots Retained, Mulch Maintained, No-Till

- Old roots remain in soil
- All biomass becomes surface mulch
- No ploughing between cycles

This converts the field into a **living sponge**.

## 4. Mulch: The Central Protection System

A key farmer concern raised was about **grass growth (live cover / grass posts)** and whether it should be removed.

#### PQNK clarification:

Grass cover is **not a problem**.

It is **protection**.

#### Functions of Grass & Mulch in Banana

- Insulates soil from extreme cold and heat
- Prevents rapid moisture loss
- Absorbs monsoon impact
- Feeds soil biology
- Prevents banana stem stress

Without this grass cover, banana plants in Nainital would not survive winter or peak summer.

#### Maize Stover Mulch

- Optional, not mandatory
- Can be added if available
- Not required if grass biomass already exists

#### Rule:

Do not clean the soil.

Do not expose the soil.

Do not fight vegetation.

Tissue culture banana plantation on PQNK



## 5. Banana Leaf Management under PQNK

- Lower, older banana leaves are removed **only when naturally aging**
- Removed leaves are **used as mulch**, not discarded
- No green leaf stripping
- No cosmetic pruning

This:

- Maintains nutrient cycling
- Prevents stress
- Supports fruit filling

## 6. Water Regulation (Not Irrigation Dependency)

Under PQNK:

- Soil holds water biologically
- Irrigation frequency reduces naturally
- Even after heavy rain, soil remains aerated

Farmer observation confirms:

- No water stress despite heat
- No rot despite rainfall

This is **biological water management**, not mechanical irrigation.

## 7. Banana Stability & Wind Resistance

Conventional banana fails due to:

- Shallow roots
- Loose soil
- Nutrient imbalance

PQNK banana:

- Develops deep anchoring roots
- Stands firm without props
- Does not lodge easily

This is a **root architecture outcome**, not a variety effect.

## 8. Flowering & Fruiting Indicators

Healthy PQNK banana shows:

- Timely emergence of inflorescence (flower bud / “langer”)
- Uniform fruit set
- Strong peduncle
- No nutrient burn or deficiency signs

**Farmer monitoring should focus on:**

- Flower emergence timing
- Fruit filling consistency
- Natural leaf senescence

## **9. Inputs: What PQNK Does NOT Use**

PQNK banana **does not require:**

- Chemical fertilizers
- Growth promoters
- Pesticides
- Fungicides
- Micronutrient cocktails

**Any forced input:**

- Disrupts soil biology
- Weakens plant immunity
- Creates long-term dependency

## **10. Farmer's Role under PQNK**

The farmer is **not a cleaner or controller**, but a **protector of processes**.

**Correct actions:**

- Observe soil cover
- Retain biomass
- Avoid panic interventions
- Allow biological correction

**Wrong actions:**

- Removing grass
- Exposing soil
- Over-watering
- Adding inputs out of fear

## **11. Why Banana Thrives on PQNK**

Banana succeeds because PQNK:

- Buffers temperature extremes
- Regulates water naturally
- Supplies minerals in ionic balance
- Eliminates stress cycles

**This proves:**

**Climate does not kill crops.**

**Broken soil systems do.**

## **Conclusion**

Banana cultivation under PQNK (PICNIC) in the climatically harsh foothills of Nainital demonstrates the power of **regenerative soil intelligence**. Without tunnels, chemicals, or heavy inputs, banana plants remain healthy, productive, and resilient.

PQNK transforms banana from a **high-risk input crop** into a **stable, low-cost livelihood crop** by restoring natural processes rather than replacing them.

**PQNK does not fight nature.**

**It organizes nature.**

---

### **Footnote**

*PQNK (pronounced “picnic”)—the regenerative & sustainable **Pristine Organic Farming System**—is grounded in **Natural Ecosystem Science**. This science employs perennial biodiversity, protects soil with organic mulch, and avoids practices such as water inundation, tillage disturbance, and leaving soil bare.*

*It is the **process** that matters most. PQNK is a pristine production system designed not merely for yield, but for optimal, balanced output—where quality, sustainability, and ecological harmony emerge from a self-regulated, zero-external-input methodology.*

### **Connect & Resources**

Facebook: [www.Facebook.Com/Pedaver](https://www.facebook.com/Pedaver)

YouTube (PQNK): <https://www.youtube.com/@pedaverpqnk3167/videos>

YouTube: <http://www.youtube.com/@aasifsharif>

PDF Knowledge Papers: <https://drive.google.com/drive/folders/1iadwV6mdUPyrUIpB3oRfNv6DLiackaUL?usp=sharing>

Email: [pedaver@gmail.com](mailto:pedaver@gmail.com)

WhatsApp: +92 320 677 6666