

### Turmeric (Vertical)



## Project Estimate

"Turmeric", Soilless, Smart, Vertical farming





#### **INVESTMENT DETAILS**

| SI#  | ltorro                        | Unit   | Otv                              | Data     | Amount        | Dom |
|------|-------------------------------|--------|----------------------------------|----------|---------------|-----|
|      | Item<br>YHOUSE (NVPH)         | Unit   | Qty                              | Rate     | Amount        | Rem |
|      |                               | Carro  | 4022                             | 050      | 2 020 400 00  |     |
| 01   | 84x48 Sqm.                    | Sqm    | 4032                             | 950      | 3,830,400.00  |     |
| 02   | Air circulation Fans          | Ea.    | 24                               | L/S      | 216,000.00    |     |
|      | 1400 RPM                      |        |                                  |          |               |     |
| INTE | ERNAL STRUCTURE               |        |                                  |          |               |     |
| 01   | GI Sqr. Pipe (I-Ladder)       | Ton    | 6.102                            | 100      | 610,200.00    |     |
|      | 40x40mm x 2.6 mm thk,         |        |                                  |          | ,             |     |
|      | 3M height (3Kg/m)             |        |                                  |          |               |     |
|      | 3mx41Px16+R (678 P)           | ID C   | 0                                |          |               |     |
| 01-  | GI Sqr. Pipe (Runner)         | Ton    | 4.080                            | 100      | 408,000.00    |     |
| A    | 40x40mm x 2.6 mm thk,         |        |                                  | 137      |               |     |
|      | 2M Length (3Kg/m)             |        |                                  |          |               |     |
|      | 2mx40mx17 (1520 P)            |        |                                  |          |               |     |
| 02   | GI Sqr. Pipe (Footing)        | Ton    | 1,900                            | 100      | 190,000.00    |     |
|      | 32x32mm x 2.6 mm thk,         |        |                                  |          | ,             |     |
|      | 1M height, (2.5 Kg/M)         |        |                                  |          |               |     |
|      | 1mx 41P x 16+ (678 P)         |        |                                  |          | ~             |     |
| 03   | MS-Flat                       | Ton    | 36.480                           | 75       | 2,736,000.00  |     |
|      | (I-ladder G.Bag Support)      | 1011   | 00.100                           | 10       | 2,100,000.00  |     |
|      | (0.8Kg/Mtr)                   |        |                                  |          |               |     |
|      | 25mm x 4 mm thk.              |        |                                  |          |               |     |
| 6    | 80m x 5L x 6L x 19R           |        |                                  |          |               |     |
| 04   | MS L Angle                    | Ton    | 5.772                            | 75       | 432,900.00    |     |
|      | (I-Ladder Layer)              |        |                                  |          | 102,000100    |     |
|      | 45mm x 30mm x 4mm,            |        |                                  |          |               |     |
|      | (2.3Kg/m) CU                  | tiva   | tina i                           | dea      | s for gro     | wth |
|      | 1.2mx 3x 41P x17R             |        |                                  |          | 9.0           |     |
| 05   | MS-Flat                       | Ton    | 2.510                            | 75       | 188,250.00    |     |
|      | (I-Ladder Btm Support)        | ΔΤ     | $\mathbf{I}\mathbf{R}\mathbf{Z}$ |          | ,             |     |
|      | (0.8Kg/Mtr)                   |        |                                  |          |               |     |
|      | 25mm x 4 mm thk.              |        |                                  |          |               |     |
|      | 41P x 1.5mx3 x 17R            |        |                                  |          |               |     |
| 06   | PCC 1:3:6 (M10)               | Cum.   | 29                               | L/S      | 108,750.00    |     |
|      | (600mm x 300mm x 300          |        |                                  |          |               |     |
|      | mm) 2 ft x 1 ft x 1 ft (0.6 x |        |                                  |          |               |     |
|      | 0.3x 0.3) <b>0.043 Cum.</b>   | KΔ     |                                  |          |               |     |
|      | 41x16R: 656 footings          |        |                                  |          |               |     |
| 07   | Open-top Growbag              | Ea.    | 60,000                           | 27       | 1,620,000.00  |     |
| 07   | LDPE 150 Micron               | La.    | 00,000                           | 21       | 1,020,000.00  |     |
|      | 30x30x45cm                    |        |                                  |          |               |     |
| CIIE | SUX30X45CIII                  |        |                                  |          |               |     |
|      |                               | Ea     | 24.000                           | 140      | 2 260 000 00  |     |
| 01   | Cocopeat (1800 Cum)           | Ea     | 24,000                           | 140      | 3,360,000.00  | ·   |
|      |                               |        | 1.10                             |          | 700 000 00    |     |
| 01   | Fertilizers, Bio fertilizers  | Kgs. / | L/S                              |          | 700,000.00    |     |
|      | and controls.                 | Ltrs.  |                                  |          |               |     |
|      | 1<br>                         |        | Page s                           | ub total | 10,340,500.00 |     |
|      |                               |        |                                  |          |               |     |





| SI#  | Item   | Unit                  | Qty         | Rate      | Amount           | Rem  |
|------|--|-----------------------|-------------|-----------|------------------|------|
| IRR  | GATION   |                       |             |           |                  |      |
| 01   | Complete irrigation system v                       | with A                | utomatic f  | iltration | 1,250,000.00     |      |
|      | mechanism and RO Plant.                            |                       |             |           |                  |      |
|      | TER AND INPUTS STORAGE                             |                       |             |           |                  |      |
| 01   | IBC Tanks / Chemical contain                       |                       | VC / STEE   | EL        | 400,000.00       |      |
|      | Water storage tank (50000 Ltr                      |                       |             |           |                  |      |
|      | SYSTEM /WEATHER STATIO                             |                       |             |           |                  | [    |
| 01   | Automated system (Substrate                        |                       |             |           | 800,000.00       |      |
|      | temp, NPK; Polyhouse I                             |                       |             |           |                  |      |
|      | sensors and fertigation auto                       | рнае                  | c adjustinę | g dozer   |                  |      |
| 0    |  |                       |             |           |                  |      |
| 01   | MUNICATION AND CCTV SU<br>Complete system with Com |                       |             | A GSM     | 200,000.00       |      |
| 01   | broadband/network and CCT                          |                       |             | y 6310    | 200,000.00       |      |
| LIFT | S AND WHEELBARROWS                                 | v Surv                |             |           |                  |      |
| 01   | Scissor lift, Wheelbarrows.                        |                       |             |           | 300,000.00       |      |
| _    | AYER   | -                     | -           |           | 000,000.00       |      |
| 01   | Testing materials, Accesso                         | ries.                 | Portable/   | Power     | 180,000.00       |      |
|      | sprayers, pro-trays, Misc.                         | ,                     |             |           |                  |      |
| GRO  | OUND COVER / WEED CONT                             | ROL N                 | <b>//AT</b> |           |                  |      |
| 01   | HDPE ground weed mat                               |                       | 4830        | 50        | 241,500.00       |      |
|      | (2.1m x 100m, 150 micron)                          |                       | RMT         |           |                  |      |
| SEE  | D  |                       |             |           |                  |      |
| 01   | Rajendra: Sonali, Sonia, H                         |                       |             | 150       | 300,000.00       |      |
|      | CIMAP: Pitambar, IISR: Prat                        | hib <mark>h</mark> a, | Kgs         |           |                  |      |
|      | Sudarshana.  |                       |             |           |                  |      |
|      | ATCH TO FINISH WORKS                               |                       |             |           |                  |      |
| 01   | Land preparation, laser level                      |                       |             |           | S 1 (900,000.00) | vth  |
|      | work (Pro-tray seedling, Stru                      |                       |             |           |                  |      |
|      | civil works, growbag installa                      |                       |             |           |                  |      |
|      | weed mat installation, Tra                         |                       |             |           |                  |      |
|      | Assisting drip irrigation persinstallation).       | sonais                | duning in   | ngation   |                  |      |
|      | installation).                                     |                       | Page 6      | ub total  | 8,631,500.00     |      |
|      |  |                       | r aye s     |           | 0,001,000.00     |      |
| Gr   | and total including cons                           | sulta                 | ncv _       |           | 21,248,64        | 0 00 |
|      |  |                       |             |           | 21,240,04        | 0.00 |
|      |  |                       |             |           |                  |      |
|      |  |                       |             |           |                  |      |

| CLIE  | <b>CLIENT SCOPE</b> (Essential things, mandatory for the project. Ignore if the same are |  |  |  |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|--|--|--|--|
| alrea | already exist)   |  |  |  |  |  |  |  |  |  |
| 01    | Solar / DG / UPS system for uninterrupted 1,000,000.00*                                  |  |  |  |  |  |  |  |  |  |
|       | power supply   |  |  |  |  |  |  |  |  |  |
| 02    | Nursery for seedling 400,000.00*   |  |  |  |  |  |  |  |  |  |
| 03    | Storage, labour and 1,000,000.00*  |  |  |  |  |  |  |  |  |  |
|       | packaging rooms  |  |  |  |  |  |  |  |  |  |
| 04    | Fencing 60,000.00*   |  |  |  |  |  |  |  |  |  |
| * CL  | * CLIENT SCOPE expenses aren't considered in these calculations                          |  |  |  |  |  |  |  |  |  |





#### **ECONOMICS**

| Investment   | 21,248,640.00               |  |  |  |  |
|--|-----------------------------|--|--|--|--|
| Total seedlings                                      | 100,608                     |  |  |  |  |
| Growbags (50,304 x 2 seeds/bag)                      | 100,608                     |  |  |  |  |
| Vertical layers                                      | 3                           |  |  |  |  |
| Yield (Per crop cycle)                               | 75,000 – 100,000 Kgs        |  |  |  |  |
| Gross yield (Fresh)                                  | 75,456 – 100,608 Kgs        |  |  |  |  |
| Yield per growbag                                    | 1.5-2.0 Kgs                 |  |  |  |  |
| Dry Yield @ 18% recovery                             | 13,500 – 18,000 Kgs         |  |  |  |  |
| Crop cycle   | Two cycle (6+6 months)      |  |  |  |  |
| Annual powder yield (2 crop cycles with 1% dry loss) | 24,000 – 34,000 Kgs         |  |  |  |  |
| Gross Income   | 7,200,000.00-10,200,000.00  |  |  |  |  |
| (Considering a farmgate price of powder @ 300 Rs/Kg) | 7,200,000.00-10,200,000.00  |  |  |  |  |
|  |                             |  |  |  |  |
| Recuring charges                                     | 2,700,000.00                |  |  |  |  |
| Labour   | 600,000.00                  |  |  |  |  |
| Fertilizers and other inputs                         | 800,000.00                  |  |  |  |  |
| Seed/seedling material                               | 400,000.00                  |  |  |  |  |
| Utility and Misc.                                    | 100,000.00                  |  |  |  |  |
| Packaging and processing                             | 800,000.00                  |  |  |  |  |
| Net Income   | 4,500,000.00 - 7,500,000.00 |  |  |  |  |

• The crop cycle and yield may subject to vary as per the geography, climatic conditions, Varietal selection and practices adopted.

• The farmgate prices are considered here is an average price, is subject to vary per the market fluctuations.

#### **TURMERIC, CROP CYCLE PLAN (SCHEDULE / ACTIVITIES)**

| Year  |    | Annual scheduling / activities |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
|---|----|--------------------------------|----|---|----|----|-----------------------|------------|-----|----|----|----|---|----|--|----|---|----|---|----|---|----|----|
|   | Ja | n                              | Fe | b | Ma | ar | Ар                    |            | ay  | Ju | n۲ | Ju | S | Au |  | Se | р | 00 | τ | No | v | De | ÷C |
|   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    | -  |
| One   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Тwo   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Three   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Four  |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Five  |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Six   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Seven   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Eight   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Nine  |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Ten   |    |                                |    |   |    |    |                       |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Transplanting of seedlings Crop growing phase |    |                                |    |   |    |    |                       |            | ise |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Replacement of substrate                      |    |                                |    |   |    |    |                       | Harvesting |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |
| Nursery seedling                              |    |                                |    |   |    |    | Sterilizing substrate |            |     |    |    |    |   |    |  |    |   |    |   |    |   |    |    |

\*\*Cycles/Yield is subjected to various factors. It may vary from region to region, climatic conditions, varietal selections, and practices.





#### **POINTS TO REMEMBER**

#### These prices are without any government subsidy.

Uninterrupted power and water supply is mandatory for the project.

While making estimate we have considered everything, but their estimated prices / expenses are not included while final calculations eg., Quarters for labours, Packing/storage room, Fencing, Generator / Solar system, UPS, etc., (Excluding Land). If any of the facilities / things aforementioned preexist, the same can be utilized for the project, if not essential things can be mandatorily required to setup/procure if they are found inevitable. Client should be notified in advance for the same and required arrangements should be done by the client within the scheduled / requested time duration.

Materials procurement and all the works are strictly done by our authorized associates, agencies or sub-contractors only.

We share complete Bill-of Quantity (BoQ), Drawings, other operation procedures and schedules for easy and effective operation with clients.

Above mentioned Prices are subjected to escalation. Freight charges and IGST are inclusive (Will be notified prior to the procurement if necessary for any discrepancies).

FYI: Gronatura reserves all the rights to use/implement new material / technology any time without prior information / approval of the clients.

#### TERMS AND CONDITIONS

(Turnkey project / LCCC (Landlord Cropping, Company Consultancy))

| Items                | Descriptions   |
|----------------------|--|
| Payment              | 75% in advance along with Purchase order / Project confirmation. |
|                      | 25% before commencement of the internal structure works.         |
| Delivery schedule    | 15 days from the receipt of the first payment.                   |
| Completion schedule  | 75-90 days from the date of the delivery schedule.               |
| Taxes and freight    | All-inclusive in the estimate                                    |
| Arbitration          | Palakkad jurisdiction only                                       |
| Bank Account details | GRONATURA CONSULTANCY COS for growth                             |
|                      | Current A/C #: 250905000524                                      |
|                      | IFSC: ICIC0002509  |
|                      | BANK: ICICI BANK, BRANCH: VICTORIA COLLEGE,                      |
|                      | PALAKKAD, KERALA, 678001.  |

Owner must arrange temporary accommodation to all workers at site / Project land. If the accommodation is far from the workplace, adequate transportation facilities should be provided to the workers.

Owner must provide potable water, uninterrupted power supply during the project execution.

Owner or their concerned and authorized people must bring to the knowledge of the consultancy about any discrepancies of materials, work etc... with in 48 hours of the receipt/execution of the same.

Owner must provide and ensure safety and security of all the material at work site.

Owner must construct Control room and storage rooms for irrigation/fertigation system and fertilizers, other inputs, and accessories storage.

Any damaged caused due to unscientific storage or ignorance by the owner / related people can't be entertained. The loss caused by the aforementioned must be borne by the owner, if it doesn't fit the rule books of the manufacturers / suppliers.

Owner mustn't share plans, technical details, and other vital and sensitive information to the unauthorized people / organization without approval and knowledge of the consultancy.





# Cultivating ideas for growth

# Contact us.... gronatura consultancy,

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