***PROYECTO***

*“DIVERSIFICACION DE LA QUINUA ECOLOGICA EN PRODUCTOS DE PANIFICACION Y REPOSTERIA CON VISION DE COMPETITIVIDAD EN LA SOCIEDAD DE PRODUCTORES DE QUINUA REAL ECOLOGICA* ***“SOPROQUI***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **REQUERIMIENTO CALCULO DE MANO DE OBRA** | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **Cargo** | Año 1 | | | | Año 2 | | | |
| **Numero de** | **Remuneración** | **Numero de** | **Total** | **Numero de** | **Remuneración** | **Numero de** | **Total** |
| **Puestos** | **mensual unitaria** | **meses x año** | **anual** | **Puestos** | **mensual unitaria** | **meses x año** | **anual** |
|  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |
| **Mano de Obra de Producción** |  |  |  | **75,600.00** |  |  |  | **77,472.00** |
| Jefe de planta | 1 | 3,000.00 | 12 | 36,000.00 | 1 | 3,090.00 | 12 | 37,080.00 |
| personal de proceso | 1 | 2,400.00 | 12 | 28,800.00 | 1 | 2,448.00 | 12 | 29,376.00 |
| beficios socailaes | 1 | 10,800.00 | 1 | 10,800.00 | 1 | 11,016.00 | 1 | 11,016.00 |
| **Mano de Obra Administración** |  |  |  | **28,002.00** |  |  |  | **28,922.00** |
| Contador | 1 | 2,000.00 | 12.0 | 24,001.00 | 1 | 2,060.00 | 12.0 | 24,721.00 |
| beficios socailaes | 1 | 4,000.00 | 1.0 | 4,001.00 | 1 | 4,200.00 | 1.0 | 4,201.00 |
|  |  |  |  | 0.00 |  | 0.00 |  | 0.00 |
| **Mano de obra Comercialización** |  |  |  | **33,600.00** |  |  |  | **35,280.00** |
| Resp. Comercializacion | 1 | 2,400.00 | 12.0 | 28,800.00 | 1 | 2,520.00 | 12.0 | 30,240.00 |
| beficios socailaes | 1 | 4,800.00 | 1.0 | 4,800.00 | 1 | 5,040.00 | 1.0 | 5,040.00 |
|  |  |  |  | 0.00 |  |  |  | 0.00 |
| **Total General** |  |  |  | **137,202.00** |  |  |  | **141,674.00** |
|  |  |  |  |  |  |  |  |  |
| **Tabla de incrementos, Remuneracion mensual** | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **Variable** | anual |  |  |  |  |  |  |  |
| **Responsable del proyecto** | 3% |  |  |  |  |  |  |  |
| **otro** | 2% |  |  |  |  |  |  |  |
| **otro** | 2% |  |  |  |  |  |  |  |
| **Responsable de producción** | 3% |  |  |  |  |  |  |  |
| **Remuneracion Contador** | 3% |  |  |  |  |  |  |  |
| **Remuneracion Personal eventual** | 5% |  |  |  |  |  |  |  |
| **otro** | 5% |  |  |  |  |  |  |  |
| **Remuneracion Resp. Comercializacion** | 5% |  |  |  |  |  |  |  |
| **otro** | 5% |  |  |  |  |  |  |  |
| **otro** | 5% |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Año 3 | | | | Año 4 | | | | Año 5 | | | |
| **Numero de** | **Remuneración** | **Numero de** | **Total** | **Numero de** | **Remuneración** | **Numero de** | **Total** | **Numero de** | **Remuneración** | **Numero de** | **Total** |
| **Puestos** | **mensual unitaria** | **meses x año** | **anual** | **Puestos** | **mensual unitaria** | **meses x año** | **anual** | **Puestos** | **mensual unitaria** | **meses x año** | **anual** |
|  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |  | **(Bs)** |
|  |  |  | **79,392.24** |  |  |  | **81,362.01** |  |  |  | **83,382.63** |
| 1 | 3,182.70 | 12.0 | 38,192.40 | 1 | 3,278.18 | 12.0 | 39,338.17 | 1 | 3,376.53 | 12.0 | 40,518.32 |
| 1 | 2,496.96 | 12.0 | 29,963.52 | 1 | 2,546.90 | 12.0 | 30,562.79 | 1 | 2,597.84 | 12.0 | 31,174.05 |
| 1 | 11,236.32 | 1.0 | 11,236.32 | 1 | 11,461.05 | 1.0 | 11,461.05 | 1 | 11,690.27 | 1.0 | 11,690.27 |
|  |  |  | **29,873.60** |  |  |  | **30,857.95** |  |  |  | **31,876.24** |
| 1 | 2,121.80 | 12.0 | 25,462.60 | 1 | 2,185.45 | 12.0 | 26,226.45 | 1 | 2,251.02 | 12.0 | 27,013.21 |
| 1 | 4,410.00 | 1.0 | 4,411.00 | 1 | 4,630.50 | 1.0 | 4,631.50 | 1 | 4,862.03 | 1.0 | 4,863.03 |
|  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |
|  |  |  | **37,044.00** |  |  |  | **38,896.20** |  |  |  | **40,841.01** |
| 1 | 2,646.00 | 12.0 | 31,752.00 | 1 | 2,778.30 | 12.0 | 33,339.60 | 1 | 2,917.22 | 12.0 | 35,006.58 |
| 1 | 5,292.00 | 1.0 | 5,292.00 | 1 | 5,556.60 | 1.0 | 5,556.60 | 1 | 5,834.43 | 1.0 | 5,834.43 |
|  |  |  | 0.00 |  |  |  | 0.00 |  |  |  | 0.00 |
|  |  |  | **146,309.84** |  |  |  | **151,116.16** |  |  |  | **156,099.88** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Requerimientos de Materiales e insumos** | | | | | | |  | |  | |  |  |  |  |  |
| **PAN y GALLETA DE QUINUA** | | | | |  | |  | |  | |  |  |  |  |  |
| **Material** | | **Unidad de medida** | | Año 1 | | | | | Año 2 | | | | Año 3 | | |
| **Cantidad** | **Costo (Bs)** | | | | **Cantidad** | | **Costo (Bs)** | | **Cantidad** | **Costo (Bs)** | |
| **anual** | **Unitario** | | **Total Anual** | | **anual** | | **Unitario** | **Total Anual** | **anual** | **Unitario** | **Total Anual** |
| harina de quinua | | kg | | 7,261.32 | 21.00 | | 152,487.72 | | 7,624.39 | | 21.42 | 163,314.35 | 8,005.61 | 21.85 | 174,909.66 |
| harina de trigo | | kg | | 21,783.96 | 4.30 | | 93,671.03 | | 22,219.64 | | 4.39 | 97,455.34 | 22,664.03 | 4.47 | 101,392.53 |
| azucar | | kg | | 871.36 | 7.00 | | 6,099.51 | | 1,100.00 | | 7.00 | 7,700.00 | 1,200.00 | 7.00 | 8,400.00 |
| levadura | | kg | | 232.36 | 10.00 | | 2,323.59 | | 237.01 | | 10.00 | 2,370.06 | 241.75 | 10.00 | 2,417.46 |
| sal | | kg | | 290.45 | 0.50 | | 145.23 | | 290.45 | | 0.50 | 145.23 | 290.45 | 0.50 | 145.23 |
| mantenca | | kg | | 580.89 | 8.00 | | 4,647.08 | | 580.89 | | 8.00 | 4,647.08 | 580.89 | 8.00 | 4,647.08 |
| agua | | Lt | | 14,522.64 | 1.19 | | 17,281.94 | | 14,522.64 | | 1.19 | 17,281.94 | 14,522.64 | 1.19 | 17,281.94 |
| bolsas | | unidad | | 218,880.00 | 0.30 | | 65,664.00 | | 218,880.00 | | 0.30 | 65,664.00 | 218,880.00 | 0.30 | 65,664.00 |
| **Total General (Bs)** | |  | |  |  | | **342,320.09** | |  | |  | **358,578.00** |  |  | **374,857.91** |
|  | |  | |  |  | |  | |  | |  |  |  |  |  |
|  | |  | |  |  | |  | |  | |  |  |  |  |  |
| Año 4 | | | | | | Año 5 | | | |
| **Cantidad** | **Costo (Bs)** | | | | | **Cantidad** | **Costo (Bs)** | | |
| **anual** | **Unitario** | | **Total Anual** | | | **anual** | **Unitario** | **Total Anual** | |
| 8,405.89 | 22.29 | | 187,328.25 | | | 8,826.18 | 22.73 | 200,628.56 | |
| 23,117.31 | 4.56 | | 105,488.79 | | | 23,579.66 | 4.65 | 109,750.54 | |
| 1,300.00 | 7.00 | | 9,100.00 | | | 1,400.00 | 7.00 | 9,800.00 | |
| 246.58 | 10.00 | | 2,465.81 | | | 251.51 | 10.00 | 2,515.13 | |
| 290.45 | 0.50 | | 145.23 | | | 290.45 | 0.50 | 145.23 | |
| 580.89 | 8.00 | | 4,647.08 | | | 580.89 | 8.00 | 4,647.08 | |
| 14,522.64 | 1.19 | | 17,281.94 | | | 14,522.64 | 1.19 | 17,281.94 | |
| 218,880.00 | 0.30 | | 65,664.00 | | | 218,880.00 | 0.30 | 65,664.00 | |
|  |  | | **392,121.10** | | |  |  | **410,432.47** | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Costos Indirectos** | |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Insumo** | **Unidad de medida** | Año 1 | | | Año 2 | | | Año 3 | | |
| **Cantidad** | **Costo (Bs)** | | **Cantidad** | **Costo (Bs)** | | **Cantidad** | **Costo (Bs)** | |
|  | **Unitario** | **Total Anual** |  | **Unitario** | **Total Anual** |  | **Unitario** | **Total Anual** |
| **Costos Indirectos** |  |  |  | **27,852.75** |  |  | **27,852.75** |  |  | **27,852.75** |
| Energía eléctrica | kwh | 2,277.32 | 3.00 | 6,831.96 | 2,277.32 | 3.00 | 6,831.96 | 2,277.32 | 3.00 | 6,831.96 |
| Agua | m3 | 5,693.30 | 1.20 | 6,831.96 | 5,693.30 | 1.20 | 6,831.96 | 5,693.30 | 1.20 | 6,831.96 |
| gas | kg | 3,795.53 | 2.50 | 9,488.83 | 3,795.53 | 2.50 | 9,488.83 | 3,795.53 | 2.50 | 9,488.83 |
| registro SENASAG | unidad | 1.00 | 3,000.00 | 3,000.00 | 1.00 | 3,000.00 | 3,000.00 | 1.00 | 3,000.00 | 3,000.00 |
| patente Municipal | unidad | 1.00 | 500.00 | 500.00 | 1.00 | 500.00 | 500.00 | 1.00 | 500.00 | 500.00 |
| mat limpieza y otros | unidad | 12.00 | 100.00 | 1,200.00 | 12.00 | 100.00 | 1,200.00 | 12.00 | 100.00 | 1,200.00 |
| **Requerimientos de Insumos de Oficina** |  |  |  | **1,850.00** |  |  | **1,950.00** |  |  | **2,000.00** |
| Comunicaciones | mes | 12 | 100.00 | 1,200.00 | 12 | 100.00 | 1,200.00 | 12 | 100.00 | 1,200.00 |
| Material de Escritorio | Global | 1 | 400.00 | 400.00 | 1 | 400.00 | 400.00 | 1 | 400.00 | 400.00 |
| Otros | Global | 1.00 | 250.00 | 250.00 | 1.00 | 350.00 | 350.00 | 1.00 | 400.00 | 400.00 |
|  |  |  |  |  |  |  |  |  |  |  |
| **Total General ($)** |  |  |  | **29,702.75** |  |  | **29,802.75** |  |  | **29,852.75** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Año 4 | | | Año 5 | | |
| **Cantidad** | **Costo (Bs)** | | **Cantidad** | **Costo (Bs)** | |
|  | **Unitario** | **Total Anual** |  | **Unitario** | **Total Anual** |
|  |  | **27,852.75** |  |  | **27,852.75** |
| 2,277.32 | 3.00 | 6,831.96 | 2,277.32 | 3.00 | 6,831.96 |
| 5,693.30 | 1.20 | 6,831.96 | 5,693.30 | 1.20 | 6,831.96 |
| 3,795.53 | 2.50 | 9,488.83 | 3,795.53 | 2.50 | 9,488.83 |
| 1.00 | 3,000.00 | 3,000.00 | 1.00 | 3,000.00 | 3,000.00 |
| 1.00 | 500.00 | 500.00 | 1.00 | 500.00 | 500.00 |
| 12.00 | 100.00 | 1,200.00 | 12.00 | 100.00 | 1,200.00 |
|  |  | **2,100.00** |  |  | **2,200.00** |
| 12 | 100.00 | 1,200.00 | 12 | 100.00 | 1,200.00 |
| 1 | 450.00 | 450.00 | 1 | 500.00 | 500.00 |
| 1.00 | 450.00 | 450.00 | 1.00 | 500.00 | 500.00 |
|  |  |  |  |  |  |
|  |  | **29,952.75** |  |  | **30,052.75** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Costos Totales Anuales (En Bs)** | |  |  |  |  |
|  |  |  |  |  |  |
|  | **Año** | **Año** | **Año** | **Año** | **Año** |
|  | **1** | **2** | **3** | **4** | **5** |
| **Costos de Producción** | 431,584.01 | 449,713.92 | 467,914.07 | 487,147.03 | 507,479.02 |
| **Mano de Obra (jornales)** | 75,600.00 | 77,472.00 | 79,392.24 | 81,362.01 | 83,382.63 |
| 0 | 0.00 |  | 0.00 | 0.00 | 0.00 |
| Responsable del proyecto | 75,600.00 | 77,472.00 | 79,392.24 | 81,362.01 | 83,382.63 |
| **Materia prima e insumos** | 342,320.09 | 358,578.00 | 374,857.91 | 392,121.10 | 410,432.47 |
| Adquisición de Materia orgánica puesto planta | 152,487.72 | 163,314.35 | 174,909.66 | 187,328.25 | 200,628.56 |
| Bolsas | 93,671.03 | 97,455.34 | 101,392.53 | 105,488.79 | 109,750.54 |
| Combustible | 6,099.51 | 7,700.00 | 8,400.00 | 9,100.00 | 9,800.00 |
| Mantenimiento | 2,323.59 | 2,370.06 | 2,417.46 | 2,465.81 | 2,515.13 |
| Envase del producto | 145.23 | 145.23 | 145.23 | 145.23 | 145.23 |
| Etiquetas | 4,647.08 | 4,647.08 | 4,647.08 | 4,647.08 | 4,647.08 |
| Fungicidas | 17,281.94 | 17,281.94 | 17,281.94 | 17,281.94 | 17,281.94 |
| Aceite sucio | 65,664.00 | 65,664.00 | 65,664.00 | 65,664.00 | 65,664.00 |
| **Costos indirectos** | 13,663.92 | 13,663.92 | 13,663.92 | 13,663.92 | 13,663.92 |
| Energia eléctrica | 6,831.96 | 6,831.96 | 6,831.96 | 6,831.96 | 6,831.96 |
| Agua | 6,831.96 | 6,831.96 | 6,831.96 | 6,831.96 | 6,831.96 |
| Depreciaciones | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Otros | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Insumo |  |  |  |  |  |
| **Costos Administrativos** | 29,852.00 | 30,872.00 | 31,873.60 | 32,957.95 | 34,076.24 |
| **Mano de obra administración** | 28,002.00 | 28,922.00 | 29,873.60 | 30,857.95 | 31,876.24 |
| Responsable de producción | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Contador | 24,001.00 | 24,721.00 | 25,462.60 | 26,226.45 | 27,013.21 |
| Personal eventual | 4,001.00 | 4,201.00 | 4,411.00 | 4,631.50 | 4,863.03 |
| Otros | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Costos Indirectos de Oficina** | 1,850.00 | 1,950.00 | 2,000.00 | 2,100.00 | 2,200.00 |
| Comunicaciones | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 |
| Material de Escritorio | 400.00 | 400.00 | 400.00 | 450.00 | 500.00 |
| Otros | 250.00 | 350.00 | 400.00 | 450.00 | 500.00 |
| **Costos de comercialización** | 33,600.00 | 35,280.00 | 37,044.00 | 38,896.20 | 40,841.01 |
| Responsable comercialización | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Comisiones | 28,800.00 | 30,240.00 | 31,752.00 | 33,339.60 | 35,006.58 |
| Transporte de producto terminado | 4,800.00 | 5,040.00 | 5,292.00 | 5,556.60 | 5,834.43 |
| Imprevistos | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Gastos Financieros** | 8,677.73 | 7,809.96 | 6,942.18 | 6,074.41 | 5,206.64 |
| Pago de Intereses | 8,677.73 | 7,809.96 | 6,942.18 | 6,074.41 | 5,206.64 |
| **Total Costos** | **503,713.74** | **523,675.87** | **543,773.85** | **565,075.59** | **587,602.91** |

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| --- | --- | --- | --- | --- | --- | --- |
| **Flujo de caja Proyectado** | | | | | | |
| (en Bolivianos) | | | | |  |  |
|  | | | | |  |  |
| **Concepto** |  | **Años** | | |  |  |
| **0** | **1** | **2** | **3** | **4** | **5** |
| Saldo al inicio |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Ingresos** |  |  |  |  |  |  |
| Ventas |  | 99,000.00 | 767,042.53 | 805,394.66 | 845,664.39 | 887,947.61 |
| Otros ingresos |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total ingresos** | **0** | **99000.00** | **767042.53** | **805394.66** | **845664.39** | **887947.61** |
| **Egresos** |  |  |  |  |  |  |
| Inversiones (compra de maquinaria; etc) | 144628.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Costos de producción (mat. Prima, mano de obra, insumos, costos indirectos, deprec.) |  | 431,584.01 | 449,713.92 | 467,914.07 | 487,147.03 | 507,479.02 |
| Costos de comercialización |  | 33,600.00 | 35,280.00 | 37,044.00 | 38,896.20 | 40,841.01 |
| Gastos de administración |  | 29,852.00 | 30,872.00 | 31,873.60 | 32,957.95 | 34,076.24 |
| Costos financieros (tasa 6% anual) |  | 8,677.73 | 7,809.96 | 6,942.18 | 6,074.41 | 5,206.64 |
| Otros gastos |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total egresos** | **144628.80** | **503713.74** | **523675.87** | **543773.85** | **565075.59** | **587602.91** |
| Utilidad bruta |  | -404713.74 | 243366.66 | 261620.80 | 280588.80 | 300344.70 |
| (-) Impuestos 25% |  | -101178.44 | 60841.67 | 65405.20 | 70147.20 | 75086.18 |
| Utilidad neta |  | -303535.31 | 182525.00 | 196215.60 | 210441.60 | 225258.53 |
| (+) Depreciaciones |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| (-) Amortización de financiamiento |  | 14,462.88 | 14,462.88 | 14,462.88 | 14,462.88 | 14,462.88 |
| **Saldo neto de efectivo** | **-144628.80** | **-317998.19** | **168062.12** | **181752.72** | **195978.72** | **210795.65** |
|  |  |  |  |  |  |  |
| Tasa de actualización |  | 12% |  |  |  |  |
| TIR |  | 19% |  |  |  |  |
| VAN |  | 136,810 |  |  |  |  |
| B/C |  | 1.55 |  |  |  |  |
| P.E. | = | Costo fijo total | |  |  |  |
|  |  | PVu-CVu |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Estados de Resultados Proyectados (En $)** | | | |  |  |
|  |  |  |  |  |  |
|  | **Año 1** | **Año 2** | **Año 3** | **Año 4** | **Año 5** |
|  |
| **Ingresos** | 730,516.70 | 767,042.53 | 805,394.66 | 845,664.39 | 887,947.61 |
| **Costos** | 503,713.74 | 523,675.87 | 543,773.85 | 565,075.59 | 587,602.91 |
| **Utilidad Bruta** | 226,802.95 | 243,366.66 | 261,620.80 | 280,588.80 | 300,344.70 |
| **Impuestos (IUE)** | 56,700.74 | 60,841.67 | 65,405.20 | 70,147.20 | 75,086.18 |
| **Utilidad Neta** | **170,102.21** | **182,525.00** | **196,215.60** | **210,441.60** | **225,258.53** |

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| --- | --- | --- | --- | --- | --- |
| **Planilla de Ventas Totales Anuales (En Bolivianos)** | | |  |  |  |
|  |  |  |  |  |  |
|  | **Año** | **Año** | **Año** | **Año** | **Año** |
|  | **1** | **2** | **3** | **4** | **5** |
| **Pan de quinua ecologica** | 297,688.70 | 312,573.13 | 328,201.79 | 344,611.88 | 361,842.47 |
| Precio (Bs/unid) | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 |
| Cantidad (unid) | 744,221.74 | 781,432.83 | 820,504.47 | 861,529.69 | 904,606.18 |
| **Galletas de quinua ecolg.** | 432,828.00 | 454,469.40 | 477,192.87 | 501,052.51 | 526,105.14 |
| Precio (Bs/bolsita) | 1.65 | 1.65 | 1.65 | 1.65 | 1.65 |
| Cantidad (bolsitas) | 262,320.00 | 275,436.00 | 289,207.80 | 303,668.19 | 318,851.60 |
| **Ingresos Totales por ventas** | **730,516.70** | **767,042.53** | **805,394.66** | **845,664.39** | **887,947.61** |
| **otros ingresos** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| **Total ingresos** | **730,516.70** | **767,042.53** | **805,394.66** | **845,664.39** | **887,947.61** |