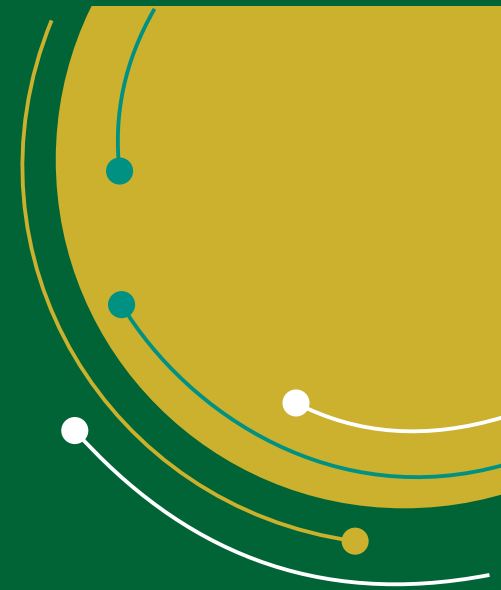
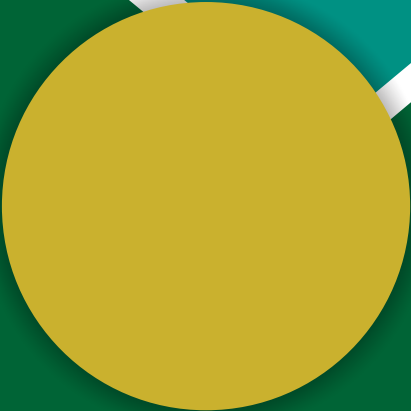


Rosa centifolia
(UAF) - A High
Value Flower Crop



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Low returns, poor productivity and marketing problems in subsistence agriculture have created social crests and financial problems for the small growers with limited resources. Therefore, it is need of the time to explore alternative means to ensure their prosperity by uplifting economic livelihood and strengthen the national economy by value addition, increasing exports and earning foreign exchange. Roses are one of the nature's most beautiful gifts to mankind which are traditionally used for expressing or exhibiting the innermost feelings to the beloved ones or complimenting any one or

versifying any conceivable emotion. Historically, in the sub-continent, flowers were praised among people traditionally but with passage of time, transition is seen from passion oriented floriculture to business oriented. Floriculture is an ancient farm activity with immense potential for generating remunerative self-employment among small and marginal farmers. Besides earning the much-needed foreign exchange, it is getting due attraction these days and the floriculture is one of the few industries with very bright prospects to uplift the economic status of small farmers.

Roses are commonly grown for ornamental purposes; however, there are some *Rosa* species which have fragrance in their flower petals and are used for value addition in the world. These species produce best quality oil which is highly valuable in cosmetics and pharmaceutical industries. Thus, cultivation of rose for the production of essential oil seems to be a viable option to increase farmers income and export earnings of the country. However, Pakistan floriculture lacks value addition and indigenous rose species flower either only once or twice in a year and yield less with poor quality oil contents.

Therefore, a new strain of *Rosa centifolia* has been developed by Institute of Horticultural Sciences, University of Agriculture, Faisalabad, which produces profuse flowering throughout year particularly during hot months. There are a very few roses in the world which produce fragrant healthy blooms at high temperatures of around 40°C. After optimization of its production and essential oil extraction technology, it is now recommended to growers for mass production and value addition.

Characteristics of *Rosa centifolia* (UAF)

- Profusely flowers throughout year
- Produces bunches of pink, fragrant flowers and continues flowering at temperatures higher than 40°C
- Produces heavy flushes from March to November bearing 500-700 flowers/plant/annum
- Has productive life upto 10-12 years
- Yields best quality essential oil comparable with that of *Rosa damascena* (indigenous rose species)
- Yields best rose water which maintains taste/freshness for longer periods than commercially available products in the market
- Produces better rose jam than of *Rosa chinensis* Gruss-an-Teplitz (Surkha) commercially used in the country
- Is best suited for value addition and product development/ processing
- Can be easily propagated through cuttings from November to February

Opportunities for big growers/industrialists (> 50 acres)

1)Rose oil (Attar)

Opportunities for small growers (< 1 – 50 acres)

1)Rose Petals/buds

2)Rose water

3)Rose Jam/Gulqand

Brief Economic Feasibilities

Rosa centifolia Essential Oil (Attar)

Number of plants per acre	5000
Flowers produced per acre	5000 kg
Essential oil	01 kg
Price/ kg oil	1.000 million
Expenditure/acre/annum	0.460 million
Net profit/acre/annum	0.540 million

Rose Petals

Number of Plants per acre	5000
Flowers required	5000 kg
Average Price/kg	Rs. 80
Total income	0.400 million
Expenditure	0.240 million
Net profit	0.160 million



Rose Water

Number of plants per acre	5000
Flowers required	5000 kg
Rose water extracted (10 L/kg petals)	50,000 liters
Total income (Wholesale price Rs. 15/Liter)	0.750 million
Expenditure (Production + Extraction)	0.360 million
Net profit/acre/annum	0.390 million



Rose Jam/Gulqand

Number of plants per acre	5000
Flowers required	5000 kg
Quality flowers for Jam	3000 kg
Sugar added	4500 kg
Rose Jam	7500 kg
Marketing standard jam	5000 kg
Wholesale Price/ kg	Rs. 150
Total income	0.750 million
Expenditure	0.510 million
Net profit/annum	0.240 million



Rosa centifolia