

FORMULATION AND EVALUATION OF POLY HERBAL ANTI AGING FACE CREAMS

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ABSTRACT

Herbal cosmetics are defined as beauty products which possess desirable physiological movement like recuperating, smoothing appearance, improving and molding properties due to the natural fixing.. Herbal Cream is a polyherbal plan that comprises of the concentrates of Aloe barbadensis, Ocimum sanctum, Azadirachta indica and Curcuma longa, Cedro oil, Myristica fragrans, Olium rosae (Rose Oil), Orange Oil, Daucus carota, Prunus dulcis and Ocimum sanctum.. Herbs such as aloe vera leaf, turmeric, banana, neem, papaya, cucumber and other plants are used as herbs in cosmetics. In the current exploration article, the polyherbal face cream is ready by utilizing following fixing that is concentrate of Curcuma longa, Solanum lycopersum, Carica papaya, Daucus carota, rose oil, olive oil, almond oil, refined water. Solanum lycopersum is utilized as an enemy of oxidant and forestalls the skin maturing. Olive oil moistures the skin, papaya nourishes the skin and curcumin acts as an antimicrobial agent. The skin maturing is essentially brought about by annihilation of collagen layer in skin which can be forestalled by utilizing almond oil. The pre-arranged polyherbal cream was assessed for the pH, spreadability, homogeneity, thickness, extrudability, invitro dissemination examines, color test, expulsion test, skin bothering and antimicrobial investigations. Among every one of the pre-arranged creams F2 and F3 is discovered to be best details as contrast with another. The total percent drug discharge from the pre-arranged polyherbal cream is discovered to be the 93%.

KEYWORDS: Curcuma longa, Carica papaya, Daucus carota.

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INTRODUCTION

‘Cosmetics’ is derived from a Greek word ‘Cosmetics’ means to adorn. In olden days any material which was used for beautification and improvement of appearance was known as ‘Cosmetics’.¹

Skin care is the age-old necessity of mankind. Smooth and graceful skin is indication of energy, yet an underlying protein called collagen is behind this faultless look. Collagen frames even layer under the skin and goes about as great cushioning that keeps skin rigid, yet graceful. Fine wrinkles begin to show up as we age. It is an inescapable piece of the normal maturing measure, however untimely maturing is result from abundance openness to the sun, tobacco smoke, and lack of hydration. The aging can be eased back down somewhat by appropriate defensive measure and the healthy skin. That necessity leads to the continuous modification and invention of lots of skin care cosmetic preparations.²

The aim of present study is to define and assess polyherbal cream containing the extract of Curcuma longa, Carica papaya, Solanum lycopersum, carrot seed oil.

Solanum lycopersum contains carotenoids, lycopene and β -carotene, natural antioxidant compounds such as: vitamin C, E. It works as excellent astringent & removes blackhead, remove tan, improves the fairness of skin².

Carica papaya shows the skin easing up properties that assist with clearing pigmentation and imperfections. Phytochemicals present in it help to promote fairness.⁴ Papaya is rich wellspring of vitamin C, A, & E, pantothenic acid.³

Almond oil acts as a skin nourisher facilitating skin lightening. It is used for flawless Skin for Deep Cleansing of Skin, to Remove the Dark Circles & Tan. To Reduce Fine Lines & Other Signs of Aging.⁴

Olive oil contains, vitamin A, D, K and vitamin E. It acts as antioxidant. It moisturizes and fights bacteria. It diminishes your skin break out by dispensing with off the bacteria which causes skin break out and hydrate your skin.

Curcuma longa shows anti-inflammatory, antioxidant, antibacterial, antifungal, antiviral powerhouse, Antiaging Treatment .2Curcumin capable of preventing insults such as spots and wrinkles and Achieving good skin permeation.⁵

Carrot seed Oil: - It is a natural moisturizing skin rejuvenator. It reduces the wrinkles and shows anti-aging property the most essential one being its ability to repair dry and damaged skin. It is normally high in nutrient A thus it offers many fixing, defensive. It is additionally superb for firming droopy skin and lighting up dull appearances.

Rose oil shows the antioxidant property that ward off free revolutionaries which empower skin harm and skin maturing. Rose essential oil used itself as a natural perfume. The high levels of vitamin A and anti-oxidants present in rose oil, makes it the perfect enemy for wrinkles.⁶

MATERIAL AND METHODS**DRUG FORMULATION**

Oil in water (o/w) emulsion-based cream were planned. The lycopene and curcumin extract and other oil solvent parts were dissolve in the oil stage and warmed to 75°C.

The papaya extract and other water-solvent parts were dissolving in water and warmed to 75°C. In the wake of warming, water stage was added gradually to the oil stage with the persistent blending unto cooling of emulsion occurred.

OIL PHASE

Ingredients	F1	F2	F3	F4
Curcuma longa extract(gm)	0.07	0.27	0.40	0.13
Solanum lycopersum extract (gm)	0.07	0.27	0.40	0.13
Cetosteryl alcohol(gm)	0.83	1.50	1.36	0.54
White soft paraffin(gm)	1.67	2.27	2.12	1.24
Almond oil(ml)	0.55	0.54	1.09	0.55
Olive oil(ml)	0.55	0.54	1.09	0.55
Rose oil(ml)	2.18	2.18	2.18	2.18
Carrot seed oil(ml)	0.6	0.9	1.2	0.8
Stearic acid(gm)	2.8	2.8	2.8	2.8

WATER PHASE

Carica papaya(ml)	1.95	1.56	2.73	3.12
Methyl paraben(gm)	0.001	0.001	0.001	0.001
Distilled water(ml)	Up to 20 gm	Up to 35 gm	Up to 35 gm	Up to 20gm

Table 1: -Formulation table of poly-herbal cream

RESULT AND DISCUSSIONS

EVALUATION OF CREAM

Physical Properties of the Cream

The Observed Cream after evaluation (F2 and F3) obtain with Yellowish white color along with pleasant odour of Rose. while, in case with F1 and F4 shows Yellowish color in appearance.

pH of the Cream

The pH was found in scope of 6.64 to 6.98 which is suitable for skin.

Spreadability

All the formulation of creams can spread on hands but along with F2 and F3 it shows better result and spread easily.

Viscosity

The detailing F2 and F3 show the best outcome as displayed beneath.

Dilution Test

It confirms that all the prepared cream is O/W type of emulsion cream.

Homogeneity

All prepared cream shows uniform conveyance of concentrates in cream.

Irritation test

All prepared formulation shows the no redness, irritation, edema, inflammation during irritation studies. All

formulations are protected to use for the skin and definition F2 and F3 shows magnificent outcome

Type of Smear

After the application, it was found that the formulation produced non-greasy film on the skin surface and F2, F3 gives an excellent result.

After feel

F1 and F4 shows less slipperiness in texture. While, F2 and F3 shows emollient, elusiveness and measure of buildup left after utilization of the fixed measure of cream base is found.

Removal

The formulations F2 along with formulation F3 applied on skin were easily removed by simply washing under tap water.

In vitro release

The drug from the formulation is discovered to be in the scope of 20-93%.

Table 2: pH of cream

Sr. No.	pH
F1	6.64
F2	6.78
F3	6.86
F4	6.98

Table 3: Cumulative % Drug Release of Prepared Poly-herbal Formulations

TIMES	F1	F2	F3	F4
0 Minute	0	0	0	0
1 Minute	29	32	26	20
2 Minute	36	41	45	29
3 Minute	57	66	58	38
4 Minute	69	84	72	42
5 Minute	72	93	90	54

Table 4: Zone of Inhibition of Prepared Poly-herbal Cream

Formulation Code	ZOI (cm)	Test organism
Marketed formulation	Nil	Staphylococcus aureus
F1	Nil	Staphylococcus aureus
F2	Nil	Staphylococcus aureus
F3	Nil	Staphylococcus aureus
F4	Nil	Staphylococcus aureus

Table 5: Observations of Accelerated Stability Studies

DAYS	TEMP	pH	X1	X2	X3
0	RT	6.7±1.18	NCC	**	E
	40°C±18C	6.6±2.09	NCC	**	E
5	RT	6.7±1.72	NCC	**	E
	40°C±18C	6.9±1.64	NCC	**	E
10	RT	6.5±1.53	NCC	**	E
	40°C±18C	6.8±2.34	NCC	**	E
15	RT	6.9±1.47	NCC	**	E
	40°C±18C	6.6±1.78	NCC	**	E
20	RT	6.5±2.13	NCC	**	E
	40°C±18C	6.6±1.48	NCC	**	E

Values are mean ± S.D. (n=3),

X1= Appearance, X2= Spreadability, X3= After feel,

**=Good, *=Satisfactory, E=Emollient, NCC= Not change in color.

Figure I: - Poly-herbal Cream Containing All Ingredients



Where,

C=Carrot seed oil (*Dacus carota*).

A=Almond oil (*Prunus dulcis*).

P=Papaya (*Carica papaya*).

T=Turmeric (*Curcuma longa*) and Tomato (*Solanum lycopersium*).

O=Olive oil (*Olea europaea*).

R=Rose oil (*Rosa centifolia*).

Figure II: - Effect of cream on skin



Figure III: - Viscosity of Poly-Herbal Cream

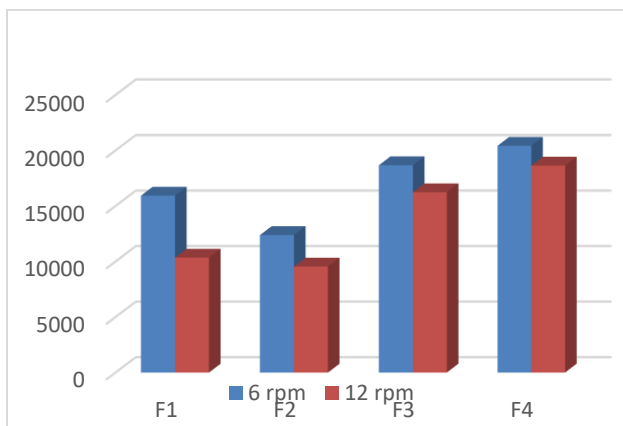
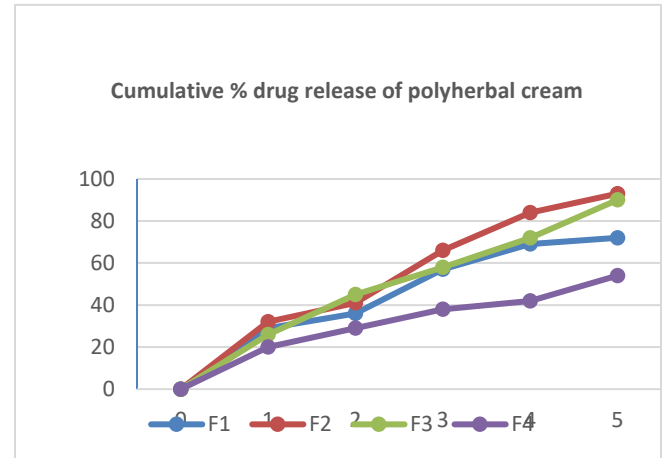


Figure IV: Cumulative% Drug Release of Poly-herbal Cream



CONCLUSION

From above conversation it is conclude that on joining the concentrates of curcuma longa, solanum lycopersium, carica papaya, in various proportion to get multipurpose impact like brightening, antiwrinkle, antiaging and sunscreen impact on skin. As we mindful of productivity of concentrate from single plant is low yet basically what I recognized that by joining numerous concentrate we can help the proficiency for item. In such manner, we blended the concentrates of curcuma longa, solanum lycopersium, carica papaya and carrot seed oil to improve too synergize the restorative properties of arranged items contrast with singular concentrates. From the above research we become acquainted with that F2 and F3 are steady and safer. The solanum lycopersium and almond oil gives the sustenance to skin and works on the lighting up of the skin. Carrot seed oil decreases the wrinkles and shows hostile to maturing property.

Curcumin is fit for forestalling skin tumors and affronts, for example, spots like wrinkles. It gives reasonableness, Achieving great skin saturation. Carica help to advance decency. Olive oil saturates and hydrate your skin. By looking at all the above detailing what I distinguished that F2 and F3 are the awesome. The pre-arranged cream was utilized as an enemy of maturing reasonableness cream and cream would discovered to be clean, stable, and the fixings utilized were appropriate for the cream readiness.

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AUTHR'S CONTRIBUTION

PR helps me during the literature survey. Helpfully, by having just one creator, there were no choices to make in regards to creator request or comparing initiation.

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