



FORMULATION AND EVALUATION OF HERBAL FACE CREAM

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Abstract : Herbal face creams have gained significant attention in recent years due to their perceived natural benefits and minimal side effects compared to synthetic counterparts. This review paper aims to provide a comprehensive overview of the formulation and evaluation methods employed in the development of herbal face creams. The review encompasses a thorough examination of various herbal ingredients commonly used in face cream formulations, highlighting their therapeutic properties and mechanisms of action. Furthermore, it delves into the formulation strategies employed to optimize the stability, efficacy, and sensory attributes of herbal face creams, including emulsion systems, viscosity modifiers, and preservatives. Evaluation methods play a crucial role in assessing the quality and performance of herbal face creams. This paper explores a spectrum of evaluation techniques, including physicochemical characterization, stability studies, microbiological testing, and in vitro/in vivo efficacy assessments. Additionally, it discusses regulatory considerations and safety aspects pertinent to the development and commercialization of herbal face creams.

In conclusion, this review provides valuable insights into the formulation and evaluation of herbal face creams, emphasizing the importance of synergistic herbal combinations, formulation optimization, and rigorous evaluation methodologies in developing high-quality, efficacious, and safe products for skincare applications.

Keywords - Herbal skincare, Formulation optimization, Evaluation methods, Face cream formulations

INTRODUCTION

HERBAL COSMETICS ARE DEFINED AS BEAUTY PRODUCTS CONTAINING HERBAL INGREDIENTS THAT HAVE DESIRED PHYSIOLOGICAL ACTIVITIES SUCH AS HEALING, SMOOTHING APPEARANCE, ENHANCING, AND CONDITIONING QUALITIES. THE USE OF HERBS IN COSMECEUTICAL PRODUCTION HAS GREATLY RISEN IN RECENT YEARS IN THE PERSONAL CARE SYSTEM, AND THERE IS A HIGH DEMAND FOR HERBAL COSMETICS. COSMETICS ARE SUBSTANCES THAT ARE APPLIED TO THE HUMAN BODY WITH THE PURPOSE OF CLEANSING, BEAUTIFYING, INCREASING ATTRACTIVENESS, AND CHANGING APPEARANCE WITHOUT HARMING THE BODY'S STRUCTURE OR FUNCTIONS.

CREAM IS DESCRIBED AS SEMISOLID EMULSIONS THAT ARE EITHER OIL IN WATER (O/W) OR WATER IN OIL (W/O), AND ARE DESIGNED FOR EXTERNAL APPLICATION. CREAM IS DIVIDED INTO TWO CATEGORIES: OIL IN WATER AND WATER IN OIL EMULSION. IT IS APPLIED TO THE OUTSIDE OR SUPERFICIAL LAYER OF THE SKIN AND HAS THE POTENTIAL TO STAY AT THE APPLICATION SITE FOR A LONGER AMOUNT OF TIME. A SKIN CREAM'S PURPOSE IS TO PROTECT THE SKIN FROM VARIOUS ENVIRONMENTAL CONDITIONS AND WEATHER WHILE ALSO PROVIDING A CALMING EFFECT. CREAMS INCLUDE CLEANING, COLD, FOUNDATION, VANISHING, NIGHT, MASSAGE, HAND, AND BODY CREAMS, AMONG OTHERS. THE MAJOR GOAL OF OUR RESEARCH IS TO CREATE A HERBAL CREAM THAT CAN BE USED AS A MOISTURISER, TO MINIMISE ACNE AND SKIN IRRITATION, TO TREAT SKIN ILLNESSES SUCH AS ECZEMA, PSORIASIS, DRY SKIN, WRINKLES, AND RASHES, AND TO BRING RADIANCE TO THE FACE.

ACCORDING TO DRUGS AND COSMETICS ACT, COSMETICS IS DEFINED AS "ARTICLES INTENDED TO BE RUBBED, Poured, SPRINKLED, SPRAYED OR INTRODUCED INTO OR OTHERWISE APPLIED TO THE HUMAN BODY OR ANY PART THEREOF FOR CLEANSING, BEAUTIFYING, PROMOTING ATTRACTIVENESS OR ALTERING THE APPEARANCE". THE WORD COSMETIC WAS DERIVED FROM THE GREEK WORD "KOSMETIKOS" MEANING HAVING POWER, ARRANGE, SKILL IN DECORATING. DEMAND FOR NATURAL COSMETICS IS STRONGER THAN EVER. NEW CONCEPTS HAD IMPROVED THE USE OF NATURAL EXTRACTS AS ACTIVE INGREDIENTS IN COSMETICS. NOWADAYS THE USEFULNESS OF HERBS IN THE COSMECEUTICALS PRODUCTION HAS BEEN EXTENSIVELY INCREASED IN PERSONNEL CARE SYSTEM AND THERE IS A GREAT DEMAND FOR THE HERBAL COSMETICS.



THE DEMAND OF HERBAL COSMETICS DUE TO THE AVAILABILITY OF NEW INGREDIENTS THE FINANCIAL REWARDS FOR DEVELOPING SUCCESSFUL PRODUCTS AND MAINTAINED OF QUALITY STANDARD. COSMETICS ARE THE PRODUCTS APPLYING ON THE BODY. FACE CREAM ARE USED AS COSMETIC FOR SOFTENING AND CLEANSING ACTION. THE AYURVEDIC SYSTEM OF MEDICINE WAS ONE OF THE MOST IMPORTANT SYSTEMS THAT USES HERBAL PLANT AND EXTRACT OF THE TREATMENT OF MANAGEMENT OF VARIOUS DISEASES STATE ALOE VERA SYNONYMS-ALOE BARBADENSIS BELONG TO FAMILY- LILIACEAE, WHICH HAVING 300 SPECIE, ALOE VERA IS CACTUS LIKE PLANT THAT GROW READILY IN HOT, DRY CLIMATES, AND ALOE VERA CULTIVATED IN VERY LARGE QUANTITIES. COSMETICS AND SOME MEDICINAL PRODUCTS ARE MADE UP FROM THE MUCILAGINOUS TISSUE IN THE CENTRE OF ALOE VERA LEAF AND CALLED ALOE VERA GEL. ALOE VERA GEL CONTAINS NO. OF ANTRAQUINONE. WHICH ARE RESPONSIBLE FOR THE STRONG LAXATIVE AFFECTS OF ALOES. EXTRACT MAY CONTAIN ANTRAQUINONE. ALOE VERA CONTAINS 75 POTENTIALLY ACTIVE CONSTITUENTS LIKE VITAMINES, ENZYMES, MINERALS, SUGARS, SAPONIS, AMINO ACIDS. AMLA, SYNONYMS- EMBLICA OFFICINALIS. FAMILY- EUPHORBIACEAE. WHICH ALSO KNOWN AS INDIAN GOOSEBERRY. IT CONTAINS VITAMIN C CONSIDERED IMPORTANT TO SLOW THE AGEING RADICALS. VITAMINS C IS A SCAVENGER OF FREE RADICALS WHICH BREAK THEM DOWN. AND ALSO CONTAIN AMINO ACID LIKE GLUTAMIC ACID, PROLINE, AND ASPARTIC ACIDS ETC. PROTEIN, MINERALS. AMLA HAVING SHOW ANTIOXIDANT, ANTI-CANCER, ANTIBACTERIAL ACTIVITY. CUCUMBER (CUCUMIS SATIVUS L.) BELONGS TO CUCURBITACEAE FAMILY SUCH AS MELON, WATERMELON, PUMPKIN AND ZUCCHINI. IT IS WIDELY CONSUMED FRESH IN SALADS OR FERMENTED (PICKLES) OR AS A COOKED VEGETABLE. THEY ARE WIDELY USED FOR VARIOUS SKIN PROBLEMS INCLUDING SWELLING UNDER THE EYES AND SUNBURN. IT IS BELIEVED THAT THEY PROMOTE REFRESHING, COOLING, HEALING, SOOTHING, EMOLLIENT KEYWORD: ALOE VERA, AMLA, CUCUMBER PEELS, FACE CREAM, EVALUATION. I. ALOE VERA GEL CONTAINS NO ANTRAQUINONE. WHICH ARE RESPONSIBLE FOR THE STRONG LAXATIVE AFFECTS OF ALOES. HOWEVER, TOTAL LEAF AND ANTI-ITCHING EFFECT TO IRRITATED SKIN. THE NUTRIENT PROFILE OF CUCUMIS SATIVUS L. INCLUDES WATER (96.4%), PROTEIN (0.4%), FAT (0.1%), CARBOHYDRATE (2.8%), MINERAL (0.3%), CALCIUM (0.01%), PHOSPHORUS (0.03%), IRON (1.5 MG/100 G) AND VITAMIN B (30 IU/100 G). ASCORBIC ACID AND ENZYME SUCH AS CREPSIN, PROTEOLYTIC ENZYME, OXIDASE, SUCCINIC, MALIC DEHYDROGENASE HAVE ALSO BEEN REPORTED IN THE FRUITS. THE BIOACTIVE COMPOUNDS ISOLATED FROM CUCUMBER INCLUDES CUCURBITACINS, CUCUMEGASTIGMANES I AND II, CUCUMERIN A AND B, VITEXIN, ORIENTIN, ISOSCOPARIN 2''-O-(6''-€- P-COUMAROYL) GLUCOSIDE, APIGENIN 7O-(6''-O-PCOUMAROYLGLUCOSIDE).

HERBAL FACE CREAM:

THE HERBAL CREAM IS BASICALLY WATER IN OIL TYPE OF EMULSION. THE NATURAL INGREDIENTS CHOSEN FOR PREPARATION OF HERBAL CREAM ARE TURMERIC, PAPAYA, ALOE-VERA, TULSI, AND NEEM. THE CHOICE OF THESE

INGREDIENTS IS BASED ON THEIR INDIVIDUAL PROPERTIES. HERBAL FACE CREAMS ARE SKINCARE PRODUCTS THAT ARE MADE WITH NATURAL INGREDIENTS DERIVED FROM PLANTS. THESE CREAMS ARE FORMULATED WITHOUT THE USE OF SYNTHETIC CHEMICALS, FRAGRANCES, OR HARSH ADDITIVES. INSTEAD, THEY HARNESS THE POWER OF BOTANICAL EXTRACTS, ESSENTIAL OILS, AND HERBAL INFUSIONS TO PROVIDE VARIOUS BENEFITS FOR THE SKIN.

HERBAL FACE CREAMS OFFER A RANGE OF ADVANTAGES, SUCH AS:

NOURISHMENT AND HYDRATION: HERBAL INGREDIENTS LIKE ALOE VERA, CHAMOMILE, AND SHEA BUTTER CAN DEEPLY MOISTURIZE AND HYDRATE THE SKIN, LEAVING IT SOFT AND SUPPLE.

SOOTHING AND CALMING: MANY HERBAL EXTRACTS, SUCH AS LAVENDER, ROSE, AND CALENDULA, PROPERTIES THAT CAN HELP CALM IRRITATED OR SENSITIVE SKIN.

ANTIOXIDANT PROTECTION: HERBAL FACE CREAMS OFTEN CONTAIN INGREDIENTS RICH IN ANTIOXIDANTS, SUCH AS GREEN TEA, GRAPESEED OIL, OR VITAMIN E. THESE ANTIOXIDANTS HELP PROTECT THE SKIN FROM FREE RADICALS AND ENVIRONMENTAL DAMAGE.

ANTI-AGING EFFECTS: SOME HERBAL INGREDIENTS, LIKE ROSEHIP OIL, GINSENG, OR LICORICE ROOT, HAVE ANTI-AGING PROPERTIES THAT CAN HELP REDUCE THE APPEARANCE OF FINE LINES, WRINKLES, AND AGE SPOTS.

BALANCING AND CLARIFYING: CERTAIN HERBS, SUCH AS TEA TREE OIL, WITCH HAZEL, OR NEM EXTRACT, HAVE NATURAL ASTRINGENT AND ANTIBACTERIAL PROPERTIES THAT CAN HELP BALANCE OIL PRODUCTION AND CLARIFY THE SKIN

BENEFITS OF HERBAL FACE CREAM:



HERBAL FACE CREAMS HAVE MANY BENEFITS FOR THE SKIN! THEY ARE MADE WITH NATURAL INGREDIENTS DERIVED FROM PLANTS, WHICH CAN PROVIDE A RANGE OF ADVANTAGES. SOME BENEFITS OF HERBAL FACE CREAMS INCLUDE:

1. GENTLE AND NOURISHING: HERBAL FACE CREAMS ARE OFTEN FORMULATED WITH GENTLE INGREDIENTS THAT ARE SUITABLE FOR ALL SKIN TYPES. THEY CAN PROVIDE NOURISHMENT AND HYDRATION WITHOUT HARSH CHEMICALS OR IRRITANTS.
2. ANTIOXIDANT PROTECTION: MANY HERBAL INGREDIENTS ARE RICH IN ANTIOXIDANTS, WHICH HELP PROTECT THE SKIN FROM ENVIRONMENTAL DAMAGE AND PREMATURE AGING. THESE ANTIOXIDANTS CAN HELP COMBAT FREE RADICALS AND PROMOTE A HEALTHIER COMPLEXION
3. SOOTHING AND CALMING: HERBAL EXTRACTS LIKE CHAMOMILE, ALOE VERA, OR CALENDULA CAN HAVE SOOTHING AND CALMING EFFECTS ON THE SKIN. THEY CAN HELP REDUCE REDNESS, INFLAMMATION, AND SENSITIVITY, MAKING THEM GREAT FOR SENSITIVE OR IRRITATED SKIN
4. NATURAL SKIN REJUVENATION: SOME HERBAL INGREDIENTS, SUCH AS ROSEHIP OIL OR GREEN TEA EXTRACT, ARE KNOWN FOR THEIR SKIN REJUVENATING PROPERTIES. THEY CAN HELP IMPROVE SKIN TONE, TEXTURE, AND ELASTICITY, PROMOTING A MORE YOUTHFUL APPEARANCE
5. CHEMICAL-FREE FORMULATIONS: HERBAL FACE CREAMS OFTEN PRIORITIZE NATURAL INGREDIENTS AND AVOID SYNTHETIC CHEMICALS. THIS CAN BE BENEFICIAL FOR THOSE WHO PREFER A MORE ORGANIC AND ECO-FRIENDLY SKINCARE ROUTINE.

DISADVANTAGES OF NON HERBAL FACE CREAM:

NON-HERBAL FACE CREAMS MAY HAVE A FEW DISADVANTAGES COMPARED TO HERBAL ONES. HERE ARE A COUPLE OF THINGS TO CONSIDER

1. HARSH CHEMICALS: NON-HERBAL FACE CREAMS OFTEN CONTAIN SYNTHETIC INGREDIENTS AND CHEMICALS THAT MAY NOT BE AS GENTLE ON THE SKIN. SOME OF THESE CHEMICALS CAN POTENTIALLY CAUSE IRRITATION, DRYNESS, OR OTHER ADVERSE REACTIONS, ESPECIALLY FOR THOSE WITH SENSITIVE SKIN.
2. ENVIRONMENTAL IMPACT: NON-HERBAL FACE CREAMS MAY BE PRODUCED USING MANUFACTURING PROCESSES THAT HAVE A HIGHER ENVIRONMENTAL IMPACT. SOME NON-HERBAL PRODUCTS MAY CONTAIN INGREDIENTS THAT ARE NOT SUSTAINABLY SOURCED OR HAVE A LARGER CARBON FOOTPRINT.

COSMETOLOGICAL IMPORTANCE OF ALOE:

ALOE VERA HAS BEEN USED SINCE ANCIENT TIMES FOR HEALING INFECTION AND BURNS. HOWEVER WITH THE IMPROVEMENT IN COSMETOLOGY, IT HAS BEEN PROVED THAT ALOE VERA IS A VERY IMPORTANT COMPONENT OF COSMETICS. IT CONTAINS ALMOST 20 AMINO ACIDS, MINERALS LIKE CALCIUM, MAGNESIUM AND SODIUM IN SUFFICIENT QUANTITIES, ENZYMES, VITAMINPOLYSACCHARIDES, NITROGEN AND OTHER COMPONENTS THAT MAKE IT A MIRACLE BEAUTY HERB. SOME OF THE MOST IMPORTANT APPLICATIONS OF ALOE VERA FOR PURPOSE OF COSMETOLOGY ARE BEING EXPLAINED HERE BRIEFLY

MOISTURIZER: ALOE VERA GEL CAN BE USED AS A LIGHTWEIGHT AND HYDRATING MOISTURIZER FOR THE FACE. IT HELPS TO LOCK IN MOISTURE AND KEEP THE SKIN SUPPLE

SOOTHING SUNBURN: ALOE HAS COOLING PROPERTIES THAT CAN PROVIDE RELIEF FOR SUNBURNED SKIN. APPLYING ALOE GEL CAN HELP SOOTHE THE REDNESS AND DISCOMFORT.

ACNE TREATMENT: ALOE VERA HAS ANTI-INFLAMMATORY AND ANTIBACTERIAL PROPERTIES, MAKING IT BENEFICIAL FOR ACNE-PRONE SKIN. IT CAN HELP REDUCE REDNESS, INFLAMMATION, AND PROMOTE HEALING.

ANTI-AGING EFFECTS: ALOE CONTAINS ANTIOXIDANTS THAT CAN HELP COMBAT THE SIGNS OF AGING, SUCH AS FINE LINES AND WRINKLES. IT CAN IMPROVE THE ELASTICITY OF THE SKIN AND GIVE IT A YOUTHFUL APPEARANCE.



ALOE VERA

MAKEUP REMOVER: ALOE GEL CAN BE USED AS A GENTLE AND NATURAL MAKEUP REMOVER. IT EFFECTIVELY REMOVES MAKEUP WHILE MOISTURIZING THE SKIN AT THE SAME TIME

ITCHING AND BLISTERS :ALOE VERA ALSO PROVIDES RELIEF FROM ITCHING AND ALSO HELPS TO TREAT BLISTERS. ALOE CONTAINS VITAMIN B1, B2, B6, B12 AND VITAMIN C THAT PROVIDE SOOTHING AND PLEASING SENSATION TO SKIN

SKIN AGING :ALOE VERA INITIATES THE SYNTHESIS OF ELASTIN AS WELL AS COLLAGEN. THESE PROTEINS ARE ESSENTIAL FOR PREVENTING THE AGING OF THE SKIN.

ACNE:ALOE VERA HELPS TO ERADICATE ACNE SCARS BY PERFORMING AS AN IMMUNE BOOSTER AND AN ANTIINFLAMMATORY AGENT. BEAUTY PRODUCTS COMPOSED OF ALOE VERA MAY DIMINISH THE RIGOROUSNESS OF ACNE. IT IS ALSO COMPOSED OF THE CHEMICAL INGREDIENTS WHICH HAVE THE PROPERTY TO SAVE THE SKIN TO INITIATE THE ACNE.

FRESHNESS ALOE VERA IMPART THE SENSATION FRESHNESS. IT HELPS IN INCREASING DISTRIBUTION OF BLOOD THEREFORE PROVIDING EASIER OXYGEN EXCHANGE AMONG THE CELLS, HENCE GIVING THEM NOURISHMENT USED FOR SOFTENING AND MOISTURIZING THE SKIN

ALOE VERA LEAVES THAT WERE MATURE, HEALTHY, AND FRESH WERE PICKED AND RINSED WITH DISTILLED WATER. THE OUTER PART OF THE LEAF WAS THEN DISSECTED LONGITUDINALLY USING A STERILE KNIFE AFTER PROPER DRYING IN A HOT AIR OVEN. THE STERILE KNIFE WAS THEN USED TO EXTRACT THE ALOE VERA GEL, WHICH IS COLOURLESS PARENCHYMATOUS TISSUE. THE FIBRES AND CONTAMINANTS ARE THEN FILTERED OUT USING MUSLIN CLOTH. THEN, IN THE PROCESS, THE FILTRATE OR FILTER PRODUCT, WHICH IS A TRANSPARENT ALOE VERA GEL, WAS USED.



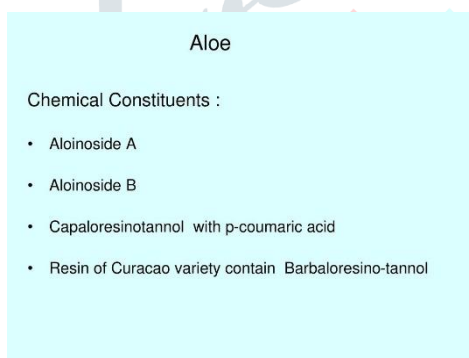
ALOE VERA GEL

ALOE IS AMAZING FOR THE FACE! IT'S LIKE A SUPERHERO FOR YOUR SKIN. IT'S SUPER HYDRATING, HELPS IRRITATION, AND CAN EVEN REDUCE REDNESS. IT'S ALSO GREAT FOR ACNE-PRONE SKIN BECAUSE IT HAS ANTIBACTERIAL PROPERTIES THAT CAN HELP FIGHT THOSE PESKY BREAKOUTS. PLUS, IT'S PACKED WITH ANTIOXIDANTS THAT CAN HELP SLOW DOWN THE AGING PROCESS AND KEEP YOUR SKIN LOOKING FRESH AND YOUTHFUL. IT'S BASICALLY A SKINCARE POWERHOUSE.

CHEMICAL CONSTITUENTS OF ALOE:

ALOE VERA CONTAINS A VARIETY OF CHEMICAL CONSTITUENTS THAT CONTRIBUTE TO ITS BENEFICIAL PROPERTIES. SOME OF THE KEY COMPOUNDS FOUND IN ALOE VERA INCLUDE:

1. **POLYSACCHARIDES:** THESE ARE LONG-CHAIN CARBOHYDRATES THAT HELP TO MOISTURIZE AND HYDRATE THE SKIN. THEY ALSO HAVE SOOTHING AND ANTI-INFLAMMATORY EFFECTS.
2. **ANTHRAQUINONES:** THESE ARE NATURAL COMPOUNDS WITH LAXATIVE PROPERTIES. THEY CAN HELP PROMOTE BOWEL MOVEMENTS AND AID IN DIGESTION. HOWEVER, IT'S IMPORTANT TO NOTE THAT THE ANTHRAQUINONES IN ALOE VERA SHOULD BE USED WITH CAUTION AND UNDER THE GUIDANCE OF A HEALTHCARE PROFESSIONAL.
3. **VITAMINS AND MINERALS:** ALOE VERA IS RICH IN VITAMINS A, C, AND E, WHICH ARE ANTIOXIDANTS THAT HELP PROTECT THE SKIN FROM DAMAGE CAUSED BY FREE RADICALS. IT ALSO CONTAINS MINERALS SUCH AS CALCIUM, MAGNESIUM, AND ZINC, WHICH ARE ESSENTIAL FOR HEALTHY SKIN AND OVERALL WELL-BEING
4. **ENZYMES:** ALOE VERA CONTAINS ENZYMES SUCH AS AMYLASE AND LIPASE, WHICH AID IN THE DIGESTION OF CARBOHYDRATES AND FATS. THESE ENZYMES CAN ALSO HELP EXFOLIATE THE SKIN AND PROMOTE CELL TURNOVER
5. **LIGNINS:** LIGNINS ARE COMPLEX POLYMERS THAT HELP ENHANCE THE PENETRATION OF OTHER BENEFICIAL SUBSTANCES INTO THE SKIN. THEY CAN HELP IMPROVE THE EFFECTIVENESS OF SKINCARE PRODUCTS



COSMETOLOGICAL IMPORTANCE OF AMLA:

AMLA, ALSO KNOWN AS INDIAN GOOSEBERRY, HAS SEVERAL COSMECEUTICAL USES. IT'S RICH IN ANTIOXIDANTS, WHICH CAN HELP PROTECT THE SKIN FROM DAMAGE CAUSED BY FREE RADICALS. AMLA IS OFTEN USED IN SKINCARE PRODUCTS FOR ITS ANTI-AGING PROPERTIES, AS IT CAN HELP REDUCE THE APPEARANCE OF WRINKLES AND FINE LINES. IT ALSO HAS BRIGHTENING EFFECTS, WHICH CAN HELP EVEN OUT SKIN TONE AND GIVE A RADIANT COMPLEXION. ADDITIONALLY, AMLA IS KNOWN TO PROMOTE HAIR HEALTH, AS IT CAN STRENGTHEN THE HAIR FOLLICLES AND PREVENT HAIR LOSS. IT'S A VERSATILE INGREDIENT THAT OFFERS MANY BENEFITS FOR BOTH SKIN AND HAIR CARE.



WELL, YOU MUST BE WONDERING HOW GOOSEBERRY CAN BE USED TO YOUR SKIN. YOU CAN CONSUME IT WITH HONEY OR YOU CAN ALSO APPLY IT ON YOUR SKIN DIRECTLY AND REAP ITS BENEFITS. IF YOU ARE FINDING IT HARD TO CONSUME THIS SOUR FRUIT, THEN TRY MAKING JUICE OUT OF IT AND CONSUME IT. THIS WILL DO GOOD FOR YOUR SKIN. ANTI-AGEING PROPERTIES: CONSUMING GOOSEBERRY JUICE CAN HELP YOUR SKIN AGE SLOWLY. AS YOU BEGIN TO AGE, YOU WOULD ALWAYS WANT TO LOOK YOUNGER AND THAT IS ONE PARTICULAR PHASE OF GROWING OLDER. HOWEVER, WHO DOES NOT WANT TO LOOK YOUNG? SO, SIMPLY JUST MAKE SOME AMLA JUICE AND ADD SOME HONEY TO IT AND DRINK IT. THIS DRINK HAS LOADS OF ANTIOXIDANTS IN IT THAT CAN HELP MAKE YOUR SKIN LOOK BETTER AND BEAT. AGEING CELLS. VITAMIN C IS FOUND IN AMLA AND THIS AIDS IN GLOWING SKIN. REGULARLY DRINKING AMLA JUICE WILL PREVENT PREMATURE AGEING, FINE LINES, DARK SPOTS AND WRINKLES.

TREATS ACNE : YOU CAN ALSO MAKE AMLA PASTE AND APPLY IT OVER THE AFFECTED AREA OF YOUR FACE AND LEAVE IT TO DRY FOR NOT MORE THAN 15 MINUTES. THIS WILL HELP IN MANAGING THE PIMPLES, FINE LINES AND REDUCE SCARRING DONE BY ACNE. IT IS A NATURAL BLOOD PURIFIER THAT KEEPS PIMPLES AND THE AFTER-EFFECTS OF ACNE AWAY. THUS, AMLA JUICE GIVES YOU FLAWLESS SKIN

GOOD SKIN TONE: HIGH AMOUNTS OF COLLAGEN CONTENTS IN YOUR SKIN HELP IN SKIN FIRMNESS AND MAKE YOUR SKIN APPEAR SOFT. REGULAR CONSUMPTION OF AMLA JUICE BOOSTS VITAMIN C LEVELS AND HELPS INCREASE THE PRODUCTION OF COLLAGEN LEVEL IN YOUR SKIN. THIS WILL MAKE YOUR SKIN LOOK SOFT AND YOUTHFUL.

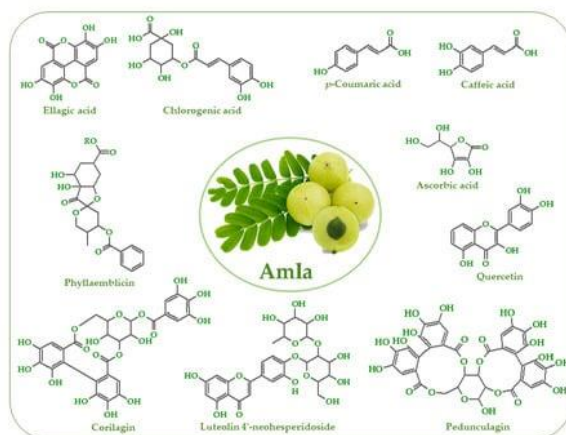
TREATS SKIN PIGMENTATION APPLYING OR DRINKING AMLA JUICE IS SAID TO CLEANSE YOUR SKIN AND REDUCED SKIN PIGMENTATION. ALL YOU NEED TO DO IS TO APPLY SOME AMLA JUICE ONTO YOUR FACE AND ONCE THIS DRIES, MAKE SURE THAT YOU USE A SMALL PIECE OF COTTON AND WIPE IT AWAY. ALSO, KEEP YOUR EYE CLOSED WHEN YOU ARE DOING THIS. DOING THIS ON A REGULAR BASIS WILL HELP LIGHTEN YOUR SKIN MARKS AND REDUCE SKIN PIGMENTATION. REMOVES DEAD SKIN CELLS AMLA JUICE IS SAID TO REJUVENATE YOUR SKIN AND ADD AN EXTRA LAYER OF SKIN BRIGHTNESS THAT WILL MAKE YOUR SKIN OUTSHINE ITSELF. HOW MORE CONFIDENT CAN YOU GET WITH YOUR SKIN APPEARING ALL BRIGHT AND VIBRANT. THIS ADDS TO SOME EXTRA BOOST OF YOUR SELF-CONFIDENCE. ALSO, AMLA JUICE IS AN EXCELLENT CLEANSER WHETHER IT IS APPLIED DIRECTLY OR CONSUMED. THIS WILL HELP REMOVE DEAD CELLS AND MAKE PROMOTE ANTI-AGEING.

Chemical constituents of amla:

Amla, also known as Indian gooseberry, is a fruit that is rich in various chemical constituents. Some of the key compounds found in amla include

Vitamin C: Amla is one of the richest natural sources of vitamin C. It contains significantly higher levels of vitamin C compared to other fruits like oranges. Vitamin C is an antioxidant that helps strengthen the immune system and protect against oxidative stress.

Polyphenols: Amla contains a variety of polyphenolic compounds, including flavonoids and tannins. These compounds have antioxidant and anti-inflammatory properties, which can help protect cells from damage and reduce inflammation in the body.



Gallic Acid: Amla is also rich in gallic acid, which is a phenolic acid with antioxidant and anti-inflammatory effects. Gallic acid has been shown to have potential anti-cancer properties and may help protect against certain types of cancer.

Ellagic Acid: Amla contains ellagic acid, another powerful antioxidant compound. Ellagic acid has been studied for its potential anti-cancer properties and its ability to protect against DNA damage caused by free radicals.

Fiber: Amla is a good source of dietary fiber, which is important for maintaining a healthy digestive system and promoting regular bowel movements.

Cosmetological Importance Of Cucumber Peels:

Do not discard cucumber peel it has many health benefits. The benefits include its beneficial effects in eye disorders, vitamin A& C deficiency, constipation and bones and muscles disorder. Cucumber peels are rich in fiber and contain minerals like magnesium, potassium, and silica. The silica is an essential component to keep your muscles, bones, and tendons healthy. It also hydrates our skin. Cucumbers have

some great benefits for cosmetology. They are often used in skincare routines because they offer a refreshing and soothing effect on the skin. Here are a few reasons why cucumbers are important in cosmetology

Skin Brightening: The natural enzymes and mild bleaching properties in cucumbers can help lighten and brighten the skin. They are often used to fade dark spots, blemishes, or hyperpigmentation.

Hydration: Cucumbers are made up of about 95% water, making them an excellent hydrating ingredient for



Cucumber peels

the skin. They can help moisturize and replenish dry or dehydrated skin, leaving it feeling refreshed and revitalized

Cooling and Soothing: Cucumbers have a cooling effect on the skin, which can help reduce redness, inflammation, and puffiness. They are commonly used to soothe sunburns, irritated skin, or tired eyes.

Antioxidant Properties: Cucumbers contain antioxidants like vitamin C and beta-carotene, which can help protect the skin from damage caused by free radicals. This can contribute to a healthier and more youthful-looking complexion.

Skin Tightening: Cucumbers have a mild astringent effect, which can help tighten the skin and minimize the appearance of pores. This can result in a smoother and more toned complexion. Cools You Off Due to its cooling qualities, cucumber has a tendency to calm and refresh you in this pricking heat. Just put water and some peels in an infuser and you're all set to beat the heat

Cosmetological Importance of Coconut oil:

Coconut oil has significant cosmetological importance due to its many beneficial properties for the skin and hair. Here are some of the reasons why coconut oil is widely used in skincare and haircare:

Moisturizing: Coconut oil is a natural emollient, meaning it helps to lock in moisture and keep the skin and hair hydrated. It forms a protective barrier that prevents water loss, making it an excellent moisturizer for dry skin and hair.

Nourishing: Coconut oil is rich in fatty acids, such as lauric acid, which have nourishing properties. These fatty acids penetrate deep into the skin and hair, providing essential nutrients and promoting overall health.

Anti-inflammatory: Coconut oil contains anti-inflammatory compounds that can help soothe and calm irritated skin. It can be beneficial for conditions like eczema, psoriasis, and acne by reducing redness and inflammation

Antimicrobial: Coconut oil possesses antimicrobial properties, thanks to the presence of lauric acid and capric acid. These compounds help fight against bacteria, fungi, and viruses, making coconut oil useful for treating skin infections and promoting a healthy scalp.

Haircare Benefits: Coconut oil can be used as a hair conditioner, leaving the hair soft, shiny, and manageable. It can also help repair damaged hair and prevent protein loss, leading to stronger and healthier hair strands.

Makeup Remover: Coconut oil is an effective and gentle makeup remover. Its oily texture helps dissolve makeup, including stubborn waterproof products, while moisturizing the skin at the same time.



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Cosmetological Use of coconut oil in herbal face cream:

Coconut oil is commonly used in herbal face creams due to its beneficial properties for the skin. When included in a face cream, coconut oil can provide the following cosmetological benefits:

- 1. Moisturization:** Coconut oil is a natural emollient that helps to hydrate and nourish the skin. It forms a protective barrier that locks in moisture, keeping the skin soft and supple.
- 2. Antioxidant Protection:** Coconut oil contains antioxidants that can help protect the skin from damage caused by free radicals. This can help minimize the signs of aging, such as fine lines and wrinkles.
- 3. Soothing and Calming:** Coconut oil has anti-inflammatory properties that can help soothe and calm irritated skin. It can be beneficial for conditions like eczema, rosacea, and sunburn.
- 4. Skin Barrier Repair:** The fatty acids present in coconut oil can help repair and strengthen the skin's natural barrier function. This can improve the skin's ability to retain moisture and protect against environmental stressors.
- 5. Gentle Exfoliation:** Coconut oil can act as a gentle exfoliator when combined with other natural ingredients. It helps to remove dead skin cells, revealing a smoother and brighter complexion.

When using a herbal face cream with coconut oil, it's important to consider your skin type and any specific concerns you may have. Some individuals with oily or acne-prone skin may find that coconut oil can be comedogenic and potentially lead to breakouts.

Formulation Strategies for Herbal Face Creams



Formulation made in laboratory

List of herbs used:

- ❖ Aloe vera
- ❖ Amla
- ❖ Coconut oil
- ❖ Cucumber peels

Material and Equipment:

The proposed study of Aloe vera, Amla, Cucumber peel, coconut oil Collected from the local area.

Sr no.	Ingredients	Property
1.	Aloe vera	Moisturizer
2.	Amla	Antiacne
3.	Cucumber peels	Antioxidants
4.	Coconut oil	Gentle Exfoliation

**Apparatus:**

Analytical balance: for precise weighing of ingredients.

water bath: to provide controlled heat for melting and mixing ingredients.

pH meter: to measure and adjust the pH level of the cream.

Viscometer: to determine the viscosity of the cream

Lab glassware and equipment: such as beakers, flasks, pipettes, funnel, measuring cylinder, stirrer

Etc

Equipment: soxhlet**Procedure:**

Preparation of Extract: Air dried and coarsely powdered of Aloe vera, Amla and cucumber peel. Were placed in Soxhlet separately, using petroleum ether and successively with Ethanol. The extract was then concentrated to dryness under reduced pressure and controlled Temperature, and they were preserved in a Refrigerator. Formulation: Beeswax, propylene glycol was taken in first



beaker. Then heat on a water bath for uniform mixing. After few minutes oil phase was formed. Aloe vera extract and Amla extract, cucumber peel extract, Distilled water, white soft paraffin and glycerine, zinc oxide, Sodium benzoate, coconut oil was taken in second beaker. Mixing all the ingredients by heating on a water bath, the aqueous phase was formed. Oil phase was added into a aqueous phase

Sr no.	Ingredients	Quantity
1	Aloe vera	1.5gm
2	Amla	1gm
3	Cucumber peels	0.8gm
4	Coconut oil	2ml

5	Bees wax	3.2gm
6	White soft paraffin	9 ml
7	Methyl paraben	0.3 ml
8	Distilled water	qs
9	Methanol	0.2 ml
10	Glycerine	1 ml
11	Propylene glycol	1 ml
12	Zinc oxide	0.7 gm
13	Sodium bicarbonate	0.1 gm

Result

The formulation and evaluation of herbal face cream involves creating a unique blend of herbal ingredients that are known for their skin benefits. These ingredients, such as plant extracts and essential oils, are carefully chosen for their properties like moisturizing, soothing, and rejuvenating the skin

During the evaluation process, the formulated cream is tested for various factors. This includes checking its physical appearance, like texture and color, to ensure it looks appealing. The cream's pH level is also assessed to make sure it is compatible with the skin's natural acidity.

Additionally, the cream's viscosity is examined to ensure it spreads smoothly and is easy to apply. Stability tests are conducted to determine how well the cream holds up over time, without any undesirable changes.

The effectiveness of the cream is evaluated by assessing its moisturizing ability, skin penetration, and potential benefits from the herbal ingredients. Microbial contamination tests are performed to ensure the cream is safe to use.

Lastly, sensory evaluations are conducted to gather feedback on the cream's scent, texture, and overall user experience. By formulating and evaluating herbal face creams, manufacturers can create products that provide natural skincare benefits while meeting quality standards.

The present research was the formulation and evaluation of polyherbal cream. The evaluation parameters were coming under results, like the physical evaluation of polyherbal cream, PH of the cream, Spreadability, Washability, non-irritancy test, viscosity and phase separation of the polyherbal pain relieving cream was shown in table.

Discussion:

The present work was the formulation and evaluation of polyherbal cream. This cream formulation was o/w type of emulsion; hence this formulation was easily washed with plane water after application. The prepared formulation was good Spreadability. Viscosity and PH of the cream was good. Cream does not show any type of phase separation during storage. The cream was nongrassy in nature and easily removable after application. The formulation was Nonirritant and not harm to the skin.

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