

Piante medicinali siciliane

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Medicinal plants and phytotherapy in Mussomeli area (Caltanissetta, Sicily, Italy)

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SUMMARY. *The popular uses of 76 officinal plants in Mussomeli area, Sicily, Italy are reported. A comparison of data obtained in this study against the Italian literature has revealed some unknown phytotherapeutic applications.*

Key words: medicinal plants; ethnopharmacology; Mussomeli; Sicily; Italy.

In various parts of Sicily, medicinal plants are still widely used¹⁻¹⁰ as an alternative to pharmaceutical products. The phytotherapy represents a very important phenomenon in traditional regional culture.

The present study concerns the area of Mussomeli, province of Caltanissetta, (Fig.1) with 11,600 inhabitants whose predominant socio-economic activity is agriculture. The aim of the present research is to record in this area the uses of medicinal plants that have been handed down to the present time by oral tradition.

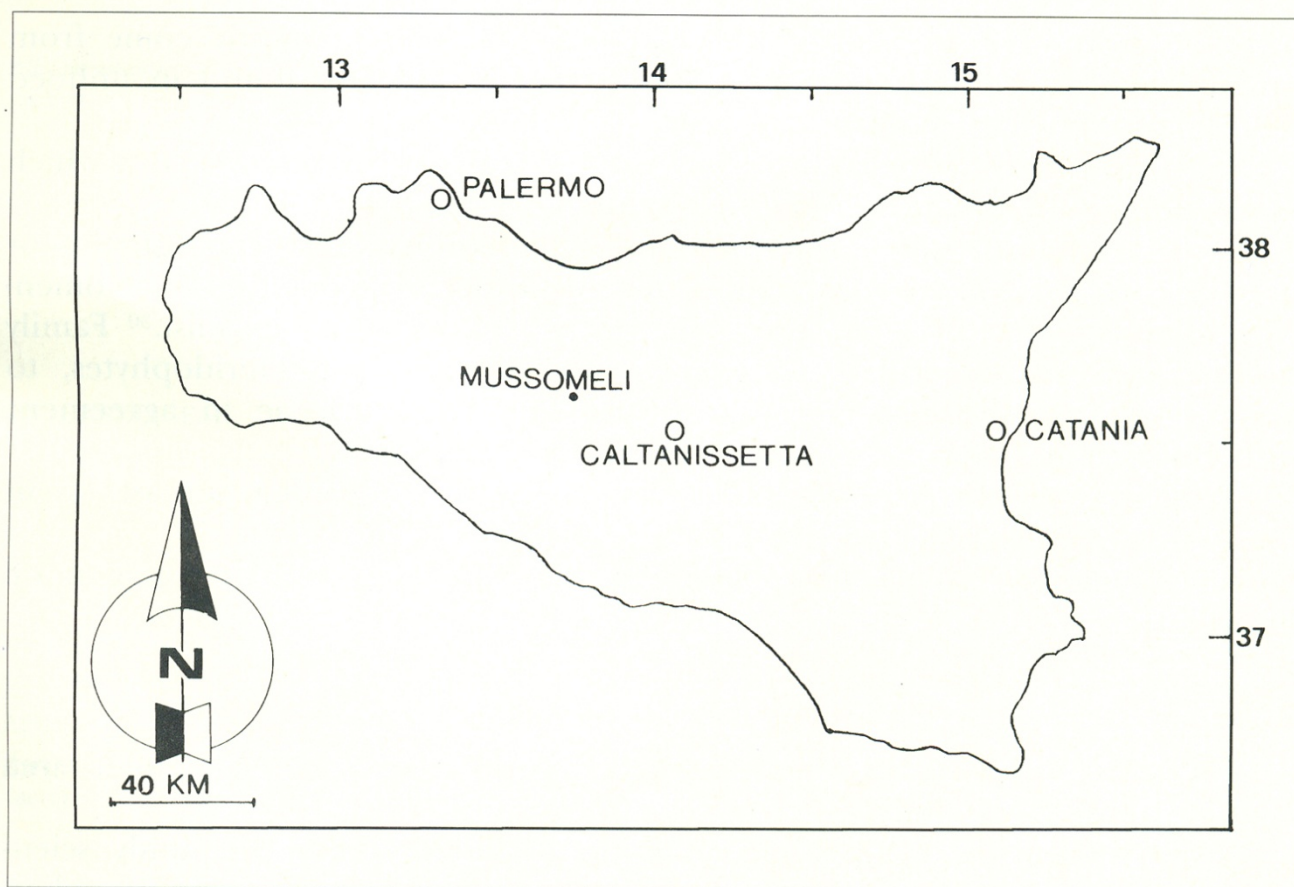


Fig. 1 - The study area of Mussomeli, Sicily.

Some years ago, the whole sicilian territory was the object of a botanical investigation regarding officinal plants.¹¹ In this work, 6 localities surrounding Mussomeli and 38 plant species were mentioned but with no information on their popular uses.

Since few data about the medicinal plants are known for this area, we felt the need to document their traditional uses before the knowledge is forgotten.

Furthermore, a comparison of data obtained in this study with both Sicilian¹⁻¹⁰ and Italian¹²⁻²⁶ literature, has revealed new or uncommon uses of some herbal remedies.

TERRITORY

The Mussomelian territory lies between 37°28' and 37°38' North latitude and 13°42' and 13°53' East longitude.

It has a surface area of about 164 km² ranging from 170 to 890 m above sea level. About 90% of the territory is devoted to the production of wheat and fodder plants.

This territory, made up principally of calcareous and clayey ground (Miocene), is one of the most uneven zones in central Sicily.

The climate is mediterranean (xerotheric region)²⁷ with very little rain in winter and dry summer; therefore streams are short of water for most of the year.

MATERIALS AND METHODS

The present investigation was carried out, from 1991 to 1995, by interviewing farmers, shepherds and elderly people (about 50 informants in the course of the research).

The wild plants utilized by the Mussomelian people mostly come from uncultivated areas, although many useful species are also found in unhoed fields, walls and the roadside.

Plant specimens were collected with the help of informants. Plants which could not be identified by our informants have not been included.

Each prescription was considered only after confirmation through two or more informants. The identification, the successive classification and nomenclature follow that of *Flora Europaea*²⁸⁻²⁹ as well as *Med-Checklist*.³⁰ Family nomenclature is according to Kramer and Green³¹ for Pteridophytes, to Cronquist³² for Dicotyledons (except for the *Sambucaceae* in agreement with Bolli),³³ and Dahlgren *et al.*³⁴ for Monocotyledons.

Voucher specimens have been deposited in the Herbarium of Milan Museum of Natural History (MSNM).

Several books of officinal plants³⁵⁻⁴¹ have been consulted for general information.

RESULTS

This study reports the use of 76 officinal plants in Mussomeli area (Caltanissetta, Sicily, Italy).

For each species, in alphabetical order, are listed (Table 1): family, scientific and local names, plant parts utilized in the phytotherapeutic remedies, popular curative properties, mode of use.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
<p>ACANTHACEAE</p> <p><i>Acanthus mollis</i> L. (biancarussina)</p>	Leaves	<p>Refreshing and antiinflammatory of digestive tract</p> <p>Against furunculosis</p> <p>As fodder for animals</p>	<p>Fresh, prepare decoction and take orally.</p> <p>Crush or boil fresh material or use entire and apply to affected area.</p> <p>Fresh material.</p>
<p>ADIANTACEAE</p> <p><i>Adiantum capillus-veneris</i> L. (capidduveneri)</p>	Aerial parts	Emmenagoue, abortifacient, pediatric laxative	Fresh, prepare decoction and take orally.
<p>ALLIACEAE</p> <p><i>Allium cepa</i> L. (cipudda)</p>	Bulbs	<p>Stomachic, digestive, diuretic and for renal lithiasis</p> <p>Against hair loss</p> <p>Cicatrizing and antiseptic for break of the hoofs (veterinary use)</p> <p>Gastronomic</p>	<p>Boil and eat.</p> <p>Boil, mash and use ointment for scalp massages.</p> <p>Mash and rub on affected area.</p> <p>Eat fresh or cooked, or use as condiment.</p>
<p><i>Allium sativum</i> L. (agliu)</p>	Bulbs	<p>Hypotensive</p> <p>Pediatric vermifuge</p> <p>Against malaria and cholera</p> <p>Gastronomic</p>	<p>Breakfast with entire or crushed bulb.</p> <p>Boil, crush and eat or put under the pillow (entire or crushed material) overnight.</p> <p>Cook and eat.</p> <p>Fresh or cooked, use as condiment.</p>
<p>ANACARDIACEAE</p> <p><i>Pistacia vera</i> L. (fastuca)</p>	Resin	Antirheumatic, against distorsions and lumbago	Heat and rub ointment on affected area.
	Seeds	Gastronomic	Dry, eat alone or prepare sweets.
<p><i>Rhus coriaria</i> L. (summaccu)</p>	Leaves	Against excessive sweating of the feet	Put fresh material into shoes.
<p>APIACEAE</p> <p><i>Apium graveolens</i> L. (acci)</p>	Leaves	<p>Antiinflammatory for urinary tract</p> <p>Digestive</p> <p>Gastronomic</p>	<p>Squeeze fresh material and take juice orally.</p> <p>Fresh, prepare decoction and take orally.</p> <p>Fresh, in soups.</p>

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
<i>Athamanta sicula</i> L. (spaccapetri)	Roots	Against renal lithiasis	Fresh, prepare decoction and take orally.
		Hemorrhoid lenitive	Fresh, mash and apply to anus.
<i>Foeniculum vulgare</i> L. (finuocchiu)	Aerial parts	Against gastric hyperacidity	Fresh, eat raw.
	Roots	Antiinflammatory for digestive tract and for gastric hyperacidity	Fresh, prepare decoction and take orally.
	Aerial parts	Gastronomic	Fresh, cook anyhow and as condiment.
<i>Petroselinum sativum</i> Hoffm. (pitrusinu)	Aerial parts	Digestive, hypotensive, for renal lithiasis	Fresh, prepare decoction and take orally.
		Gastronomic use	Fresh, use as condiment.
<i>Visnaga daucoides</i> Gaertn. (fastunaca, vastunaca)	Stalk	Decongestant and lenitive for insect bites	Fresh, slice and rub to affected area.
ARALIACEAE			
<i>Hedera helix</i> L. (eddira)	Leaves	Against abscesses and tumefactions	Apply fresh entire material on affected area.
ASPHODELACEAE			
<i>Asphodelus microcarpus</i> Salzen et Viv. (arbiruzzu)	Tuberous roots	Vulnerary, for burns and against hair loss	Mash and rub on affected area.
		As wound-wort and sore cicatrizer in saddle and draught-horse	Crush with honey and apply to affected area.
ASTERACEAE			
<i>Artemisia arborescens</i> L. (astuta cannili, erba bianca)	Leaves	Stomachic, digestive, vermifuge and antihelmintic	Fresh or dry, prepare decoction and take orally.
		Vermifuge and antihelmintic	Fresh or dry, prepare decoction and make enema or smell fresh material.
		Against dermatitis and skin inflammations	Squeeze fresh material and apply juice on affected area.
		For hemorrhoidal bleeding and swelling	Crush fresh plant, mix with olive oil and apply ointment to anus.
<i>Centaurea</i> sp.pl. (apurchiu)	Aerial parts	Hepatoprotective, depurative, hypotensive, diuretic, antidiabetic, gastronomic	Cook and eat fresh plant.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
<i>Chamomilla recutita</i> (L.) Rauschert (gumidda)	Heads	As sedative for insomnia and menstrual pains Toothache, erythematous eruption of eye	Fresh or dry, prepare decoction and take orally. Fresh or dry, prepare decoction and use liquid for mouthwashes and gargles or eye washes.
<i>Cichorium intybus</i> L. (cicoria)	Aerial parts	Emollient and antiphlogistic for digestive tract, against constipation, gastronomic	Boil and eat fresh plant.
<i>Cynara cardunculus</i> L. ssp. <i>cardunculus</i> (carduna di fiu, carduna amari)	Leaves	Cholagogue, choloretic, antidiabetic	Fresh, prepare decoction and take orally.
	Thistle	Gastronomic	Boil and fry with wheat meal.
	Artichokes	Against constipation, gastronomic	Roast on embers.
<i>Cynara cardunculus</i> L. ssp. <i>scolymus</i> (L.) Hayek (carduna, cacuocciula)	See above	See above	See above.
<i>Ditrichia viscosa</i> Greuter (burcara, bruccara)	Leaves	Resolvent and decongestant for traumatic swelling, sprains, tumefactions, contusions, haematomas	Fresh, entire warm or mashed alone or with solvent (olive oil, vinegar or honey) and apply to affected area.
<i>Lactuca sativa</i> L. (lattuca)	Leaves	Emollient and refreshing for digestive tract	Fresh, boil and eat.
<i>Lactuca serriola</i> L. (lattuchedda)	Latex	Vulnerary	Rub liquid on wound.
<i>Picris</i> sp.pl. (aspredda, aspiredda)	Aerial parts	Antisthmatic, antiinflammatory or digestive tract	Fresh, prepare decoction and take orally.
<i>Tanacetum vulgare</i> L. (erba di viermi)	Aerial parts	Gastronomic	Boil and eat with olive oil.
	Aerial parts	Vermifuge	Fresh, prepare decoction or squeeze juice and take orally.
		Vermifuge Vermifuge	Smell fresh plant. Fresh, prepare decoction and inhale steam.
<i>Tussilago farfara</i> L. (rugna cavaddina)	Leaves	Against pimples and whitlows	Fresh, apply to affected area.
BORAGINACEAE			
<i>Borago officinalis</i> L. (vurraina)	Leaves	Antiasthmatic, diuretic, hypotensive	Fresh, prepare decoction and take orally.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
BRASSICACEAE <i>Brassica oleracea</i> L. (cavulu)	Leaves	Against constipation, antiphlogistic of digestive tract, gastronomic	Boil and eat fresh material.
	Leaves	Resolvent and decongestant for tumefactions, contusions and haematomas Digestive	Heat fresh material and apply with salt (NaCl) on affected area. Fresh, prepare decoction and take orally.
	Stalk	Antitussive and for bronchial afflictions	Fresh, slice, sprinkle with powdered sugar to form a liquid extract and take orally.
CACTACEAE <i>Opuntia ficus-indica</i> (L.) Miller (ficudinia)	Flowers	Emollient and antiinflammatory of digestive tract	Fresh or dry, prepare decoction and take orally.
		Antispasmodic, diuretic for renal colics	Fresh or dry, prepare decoction with rhizomes of <i>Cynodon dactylon</i> and take orally.
	Fruits	Antidiarrhoeic, gastronomic	Peel and eat.
	Branches	Re-epithelizer in burns Resolvent for traumatic swelling of withers (horse)	Fresh, cut into pieces and apply to affected area. Fresh, heat on embers, cut into pieces and apply to affected area.
CAESALPINIACEAE <i>Ceratonia siliqua</i> L. (carrubba)	Fruits	Antitussive, antibacterial, against bronchial and throat affections As fodder for animals	Fresh or dry, cut into pieces, combine with other drugs (see <i>Ficus carica</i>) prepare decoction and take orally. Fresh or dry material.
CAPPARIDACEAE <i>Capparis spinosa</i> L. (chiappara)	Roots	Antihepatotoxic and against hepatitis	Fresh or dry, prepare decoction and take orally.
	Caper	Gastronomic	Use pickled capers as condiment.
CRASSULACEAE <i>Umbilicus</i> sp.pl. (callaredda, crucchiulidda, auricchia, fungidda)	Leaves	Resolvent and decongestant for pimples, phlegmons and tumefactions	Fresh, apply to affected area.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
	Leaves	Lenitive for haemorrhoids	Crush fresh material and apply to anus.
DIPSACACEAE			
<i>Dipsacus fullonum</i> L. (erba ciciramina)	Leaves	Against hair loss	Use rain-water over the leaves for scalp massages.
EQUISETACEAE			
<i>Equisetum</i> sp.pl. (cudà di cavaddu)	Aerial parts	Against ulcer and inflammation of digestive tract, diuretic, abortifacient	Fresh or dry, prepare decoction and take orally.
FABACEAE			
<i>Glycyrrhiza glabra</i> L. (liquirinzia)	Roots	Bechic and expectorant	Fresh or dry, cut into pieces, alone or with other drugs (see <i>Ficus carica</i>) prepare decoction and take orally.
	Roots	For mouth inflammations	Fresh or dry, cut into pieces, prepare decoction and use liquid for mouthwashes and gargles.
<i>Lens culinaris</i> Medicus (lenticchi)	Seeds	Antianaemic, gastronomic	Dry, cook and eat.
<i>Trigonella foenum-graecum</i> L. (traanella)	Seeds	For nephritis	Dry, prepare decoction with oaten seeds and take orally.
	Seeds	Vermifuge, fodder for animals	Dry material.
FUMARIACEAE			
<i>Fumaria</i> sp.pl. (fumu terra)	Aerial parts	Stomachic, bitter-tonic, antiulcer, hepatoprotective, diuretic, stimulant in depressing state	Fresh or dry, prepare decoction and take orally.
		Against hair loss	Fresh or dry, prepare decoction and use liquid for scalp massages.
LAMIACEAE			
<i>Coridothymus capitatus</i> Rchb. f. (sataredda)	Leaves	Vermifuge	Fresh or dry, prepare decoction and take orally.
		Resolvent and decongestant for contusions, tumefactions and sprains	Fresh or dry, prepare decoction and use liquid for compresses.
<i>Mentha</i> sp.pl. (menta)	Leaves	Digestive	Fresh, prepare decoction and take orally.
	Leaves	Gastronomic	Fresh, use as a condiment
<i>Mentha suaveolens</i> Ehrh. (mintastru)	Leaves	Against common cold with headache	Fresh, prepare decoction and inhale steam.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
<i>Micromeria greca</i> (L.) Bentham (soppiu)	Leaves	Refreshing and antiinflammatory for digestive tract	Fresh, prepare decoction and take orally.
		Lenitive and decongestant for sprains, tumefactions and contusions (veterinary use)	Fresh, prepare decoction and use liquid for compresses.
<i>Ocimum basilicum</i> L. (basilicò)	Leaves	Hypotensive	Fresh, prepare decoction and take orally.
<i>Origanum vulgare</i> L. ssp. <i>viridulum</i> (Martr.-Don) Nyman (arianu, ariganu)	Leaves	Gastronomic	Fresh, use as condiment.
	Inflorescens	Against toothaches	Dry, make cigarettes and smoke.
<i>Rosmarinus officinalis</i> L. (rosamarino)	Leaves	Gastronomic	Fresh or dry, use as condiment.
	Leaves	For relaxation	Fresh or dry, combine with sage and rue leaves, prepare decoction and use liquid for bath.
<i>Salvia fruticosa</i> Mill. (sarbia, sarvia)	Leaves	Gastronomic	Fresh, or dry, use as condiment.
		Against bronchial affections and headache, antitussive, for cystitis, digestive, hepatoprotectant, hypotensive, in rheumatic arthritis	Fresh or dry, prepare decoction and take orally.
<i>Teucrium scordium</i> L. (scordiu)	Leaves	As dentifrice	Fresh, rub on teeth.
		Bitter tonic, aperitive, digestive, antidiabetic, against malaria, stimulant in depressing state	Fresh or dry, prepare decoction and take orally.
LAURACEAE	Leaves	Lenitive and decongestant for contusions and tumefactions (also in veterinary) disinfectant and cicatrizing for wounds and sores	Prepare decoction (fresh or dry material) alone or with leaves of <i>Eucalyptus</i> and <i>Micromeria</i> , and use liquid for compresses.
		Against stomach-ache, digestive in cases of gastric hyperacidity, for headache	Fresh or dry, prepare decoction and take orally.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use	
LINACEAE <i>Linum</i> sp. (linu, linusa)	Leaves	For smelly feet	Prepare decoction (fresh or dry material) and use liquid for foot baths.	
		Bechic in persistent coughs and for bronchial affections	Fresh or dry, combine with lemon peel, orange peel, cinnamon and mint-caramels, prepare decoction and inhale steam.	
		Gastronomic	Fresh or dry, use as condiment.	
MALVACEAE <i>Malva</i> sp.pl. (marba)	Seeds	Refreshing and emollient for digestive tract	Dry, prepare decoction and take orally.	
		Lenitive and resolvent for tumefactions, pimples and toothaches	Dry, boil and poultice on affected area.	
		Aerial parts	Emollient and antiinflammatory for digestive and urinary tracts, as newborn first feeding	Fresh or dry, prepare decoction and take orally.
			For throat and mouth inflammations, toothaches	Fresh or dry, prepare decoction and use liquid for mouthwashes and gargles.
MORACEAE <i>Ficus carica</i> L. (ficu or bifari)	Syconia	Antispasmodic in intestinal colics	Fresh or dry, prepare decoction and make enema.	
		Decongestant in skin and eye inflammations	Fresh or dry prepare decoction and use liquid for compresses and washes.	
		Bechic, expectorant and for throat inflammations	Dry, combine with carob fruits and barley seeds, add either liquorice roots or mint candies, prepare syrupy decoction (farru) sweeten with honey and take orally.	
MYRTACEAE <i>Eucalyptus</i> sp.pl. (calipsi)	Leaves	Gastronomic	Dry, eat alone or prepare sweets.	
		Febrifuge, hypotensive, pediatric vermifuge, against gastritis	Fresh or dry, prepare decoction and take orally.	

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
	Leaves	Antirheumatic Resolvent and decongestant for bruises and tumefactions (also in veterinary) For mouth inflammations and toothaches	Fresh or dry, prepare decoction with sage leaves and take orally. Prepare decoction (fresh or dry material) alone or with other drugs (see <i>Teucrium scordium</i>) and use liquid for compresses. Fresh or dry, prepare decoction and use liquid for mouthwashes and gargles.
OLEACEAE			
<i>Olea europaea</i> L. var. <i>europaea</i> (auliva)	Leaves	Hypotensive	Fresh, prepare decoction and take orally.
<i>Olea europaea</i> L. var. <i>sylvestris</i> Brot. (agliastru)	Leaves	For toothaches	Fresh, prepare decoction and use liquid for mouthwashes.
	Tops	For toothaches	Chew fresh material.
PAPAVERACEAE			
<i>Papaver somniferum</i> L. (paparina pu pani)	Capsules	For toothaches	Dry, prepare decoction and use liquid for mouthwashes.
	Seeds	Gastronomic	Dry, use in bread-making with sesame seeds.
PLANTAGINACEAE			
<i>Plantago</i> sp.pl. (cientu nierbi)	Leaves	Refresher and antiinflammatory of digestive tract Decongestant and resolvent for pimples and whitlows	Fresh or dry, prepare decoction and take orally. Fresh, apply to affected area.
POACEAE			
<i>Cynodon dactylon</i> (L.) Pers. (ramigna, gramigna)	Rhizomes	Refreshing and antiinflammatory for digestive and urinary tracts, and antispasmodic in renal colics	Prepare decoction (fresh or dry material) alone or with indian fig flowers and take orally.
<i>Hordeum vulgare</i> L. (uriu)	Seeds	Reconstituent, emollient and refreshing for digestive tract Against bronchial and throat affections, anticatarrhal Against verruca Gastronomic use	Dry, prepare decoction and take orally Dry, combine with carob and fig fruits, prepare decoction and take orally. Dry, apply to affected area Grind to powder roast seeds and prepare as coffee.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
<i>Triticum durum</i> Desf. (lavuri, furmientu)	Bran	Against milk-crust in newborns	Drench in hot water, squeeze in small pieces of cloth to form a liquid extract and rub on affected area.
	Seeds	Gastronomic use (cuccia)	Boil, sugar and eat.
RANUNCULACEAE			
<i>Ranunculus ficaria</i> L. (erba di vini, erba di morroidi)	Rhizomes	Resolvent for hemorrhoidal bleeding	Fresh, mash and rub on affected area.
ROSACEAE			
<i>Prunus domestica</i> L. (pruna)	Fruits	Laxative, gastronomic	Eat, fresh.
<i>Rubus ulmifolius</i> Schott (ruviettu and amareddi)	Tops	For toothaches	Fresh, crush in between teeth.
	Leaves	Lenitive and resolvent for whitlows, pimples, tumefactions and stings	Fresh, entire or mashed, apply to affected area.
	Fruits	Gastronomic	Eat fresh or prepare jam.
RUTACEAE			
<i>Citrus limon</i> (L.) Burm. f. (limuni)	Fruits	Against bronchial affections and antitussive	Fresh, cut into pieces, prepare decoction and take orally.
		Against sob, antidiarrhoeic, hypotensive	Fresh, squeeze juice and take orally.
		Against throat affections	Fresh, mix juice with honey and take orally.
		In cases of gastric hyperacidity	Fresh, combine juice with water and sodium bicarbonate and take orally.
		Against gastric hyperacidity	Fresh, cut into pieces, combine with laurel and parsley leaves, prepare decoction and take orally.
		Against eye redness	Fresh, mix juice with water and use liquid for compresses and eyewashes.
		Gastronomic	Fresh, use juice as condiment.
		Antiseptic in persistent cough and for bronchial afflictions	Fresh, combine peel with other drugs (see <i>Laurus</i>) prepare decoction and inhale steam.
<i>Citrus sinensis</i> (L.) Osbeck (aranciu)	Fruits	Antiseptic in persistent cough and for bronchial afflictions	Fresh, combine peel with other drugs (see <i>Laurus</i>) prepare decoction and inhale steam.
<i>Ruta chalepensis</i> L. (ruta)	Aerial parts	For renal lithiasis and stinking urine	Fresh, prepare decoction and take orally.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
	Aerial parts	Vermifuge	Squeeze fresh material and take juice orally.
		Vermifuge	Smell fresh plant.
		Lenitive and resolvent for tumefactions, haematomas and bruises	Fresh or dry, prepare decoction and use liquid for compresses.
		Against rheumatic pains	Fresh, fry with olive oil or macerate in alcohol and apply ointment to affected area.
SAMBUCACEAE <i>Sambucus nigra</i> L. (savucu)	Flowers	Decongestant for piles	Fresh, mash and apply to anus.
	Flowers	As wound and sore cicatrizer, for burns, hemorrhoidal bleeding and diaper rash in newborns	Fresh, macerate in olive oil and apply to affected area.
SOLANACEAE	Leaves	For contusions and burns	Use fresh material or prepare decoction and apply to affected area.
	Fruits	Digestive and hypotensive	Fresh, use as condiment.
<i>Capsicum annuum</i> L. (piparuolo)	Leaves	Analgesic for foot pains	Fresh, prepare decoction and use liquid for foot baths.
<i>Lycium europaeum</i> L. (spina santa)	Leaves	Antirheumatic	Fresh, prepare decoction and take orally.
<i>Lycopersicon esculentum</i> Miller (pumadamuri, pumadori)	Leaves	Resolvent for insect bites	Fresh, mash and apply to affected area.
		Decongestant for bruises	Mash fresh material, mix with honey and apply to affected area.
	Fruits	Lenitive and decongestant for pimples and whitlows	Fresh, slice and apply to affected area.
	Fruits	Gastronomic	Fresh, as salad in soups, as tomato sauce or for alimentary preserves
<i>Mandragora autumnalis</i> Bertol. (miennula grò)	Leaves	Resolvent for whitlows, pimples and phlegmons	Fresh, apply to affected area.
<i>Solanum melongena</i> L. (miligiana)	Fruits	Against warts (also veterinary use)	Fresh, slice, sprinkle with salt (NaCl) put under pressure to form a liquid extract and apply to affected area.

Family, botanical and vernacular names	Plant part	Traditional uses	Mode of use
	Fruits	Gastronomic	Fresh, cook anyhow and as alimentary preserves.
<i>Solanum nigrum</i> L. (pumadurieddu)	Fruits	For toothaches	Fresh, crush in between teeth.
<i>Solanum tuberosum</i> L. (patata)	Tubers	Lenitive and decongestant for eye redness and burns	Fresh, slice and apply to affected area.
		Gastronomic	Cook anyhow and as salad.
SCROPHULARIACEAE			
<i>Kickxia spuria</i> (L.) Dumort (pilusedda)	Aerial parts	Against excessive sweating and small sores of feet	Put fresh material into shoes.
SMILACACEAE			
<i>Smilax aspera</i> L. (strazzaculu)	Leaves	In benign prostatic hypertrophy	Fresh, prepare decoction and take orally.
URTICACEAE			
<i>Parietaria</i> sp.pl. (erba di ventu)	Aerial parts	Refreshing and emollient for digestive tract and for cystitis, diuretic, pediatric vermifuge	Fresh, prepare decoction or squeeze juice and take orally.
		Resolvent and lenitive for eye redness, burns, sprains and abdominal pains	Crush fresh material and apply to affected area.
<i>Urtica</i> sp.pl. (ardiculi)	Aerial parts	Antiinflammatory for cystitis and digestive tract, antiasthmatic	Fresh, prepare decoction and take orally.
		Against hair loss	Fresh, prepare decoction and use liquid for scalp massages.
		Resolvent and decongestant for tumefactions, contusions and antioedema	Fresh, boil and poultice to affected area

Table 1 - The current uses of medicinal plants in Mussomeli area, Sicily, Italy.

DISCUSSION

From the data obtained, it is evident that phytotherapy is still alive in the investigated area, even if it represent a past culture. In fact, this study shows that only the older people have a deep knowledge of the medicinal plants, while the younger generation has a poor phytotherapeutic knowledge. We may assume that the older people use herbs as did their fathers and grand-

fathers, while the younger generation is no longer acquainted with officinal flora. Phytotherapeutic experience cannot to be handed down from father to son as manual labour has been replaced by machines and the new methods of farming do not allow time for conversation.

The total number of taxa which are still utilized in Mussomeli area is 76 from 36 different families. Those with the highest number of utilized taxa are: Asteraceae (12), Lamiaceae (9), Solanaceae (7) and Apiaceae (5).

As regards the form of preparation of herbal remedies, decoction is by far the most prevalent method, probably because of its simplicity. Also used are: ointments, compresses, juices, enema, infusions and poultices. Most remedies consist of single herbs but occasionally some are used in mixtures. The population tends to use officinal plants against skin and subcutaneous affections (*e.g.* wounds, sores, burns, pimples, warts, whitlows, phlegmons, tumefactions, contusions and haematomas), problems of digestive tract, toothaches, sore throat, inflammations, hyperacidity, constipation and worms. The remedies also have other uses such as antitussive antiasthmatic, antiphlogistic (for eye and urinary tract), antilithiasis, diuretic, hypotensive, antihaemorrhoidal, antidiabetic, antirheumatic and against hairloss. Others are used for veterinary and gastronomy purposes.

The properties attributed to most of the species agree with those reported in the literature. On the contrary, for some plants the uses suggested by the Mussomeli traditional medicine seem to be new or at least unusual.

Equisetum is claimed to be an abortifacient (a hitherto unreported use). The juice of horse-tail is popularly known to exhibit emmenagogue property.²⁵ The abortifacient use of emmenagogue plants has been previously described. Decoction of the fronds of *Adiantum capillus-veneris*, often used as emmenagogue^{12,14,17,18,22,35} is claimed to be an abortifacient (as in present paper).^{6,7,10,18,24} Based on the consideration that both phytotherapeutic properties (emmenagogue and abortifacient) involve uterin bleeding, a delayed menstrual hemorrhage, from a popular standpoint, could be interpreted as a miscarriage.

The utilization of *Adiantum capillus-veneris* as laxative is rather unusual. Maidenhair fronds are characterized by the presence of mucilages,³⁹ well-known laxative substances,⁴⁰ which may justify their traditional use.

The flowers of *Sambucus nigra* macerated in olive oil are considered a very effective remedy for wounds, sores and piles. This unknown medical use seems to be quite reliable. In fact, tannins, mucilages, saponins³⁸ and flavonoids^{42,43} are known to be present in elder flowers. The astringent and antibiotic activities⁴⁴ of tannins, the antihaemorrhagic action⁴⁵ of flavonoids, the antiinflammatory and emollient properties⁴⁰ of mucilages, the antimicrobial and fungicidal activities^{46,47} of saponins would account for employment of this species.

Plants containing flavonoids are utilized in treatment of various affections. The flavonoids have numerous, well known biological properties, *e.g.* antiinflammatory,⁴⁸ antispasmodic, diuretic⁴⁰ and hypoglycemic.⁴⁹

The presence of flavonoids in *Picris*,⁵⁰ a genus known for haemostatic and cicatrizing activities,^{3,4,6,18,19} could explain its use as antiasthmatic and antiinflammatory recipe.

The hypotensive properties of both *Centaurea* and *Eucalyptus* could be attributed to the diuretic action of the flavonoids.^{40,51} The utilization of

diuretic plants as hypotensive (as for *Ocimum basilicum*, in present paper) has been previously described (e.g. *Urtica dioica*,¹⁶ *Ocimum basilicum*^{15,52}). Moreover, flavonoids could justify the antidiabetic action of *Centaurea* genus. The utilization of *Teucrium scordium* as a hypoglycemic drug is rather unusual, even if antidiabetic Lamiaceae have been previously reported (e.g. *Salvia officinalis*,³⁸ *S. sclarea*,^{23,26} *Teucrium fruticans*,⁵ *Ballota rupestris*,⁵ *Lavandula lanata*⁵³ and *Rosmarinus officinalis*²¹). Hypoglycemic action, like most uses of Lamiaceae, could be explained on the basis the plant richness in essential oils and flavonoids.⁵⁴

The presence of mucilages³⁹ and tannins^{1,35} in *Umblicus* could explain its use against piles and ear inflammations.

Finally, the following properties have not previously been reported: the antihemorrhoidal use of *Athamanta sicula*, the decongestant and lenitive action of *Visnaga daucoides* and the vulnerary action of *Lactuca serriola*.

Very unusual is the utilization of *Malva* sp.pl. as first feeding of newborn.

For several plants we report various uncommon uses which have been mentioned before in literature.

Among these: the antiasthmatic use both of *Urtica* sp.pl.³⁶ and of *Borago officinalis*;²¹ the antilithiasis use of *Athamanta sicula*;^{9,55} the antihepatotoxic activity of *Capparis spinosa*;⁵⁶ the vermifuge action of *Parietaria*;^{2,20} the antidontalgic property of *Origanum*,⁴ *Olea europaea*^{2,8} and *Solanum nigrum*;^{13,14} the antihemorrhoidal action of *Ruta*;¹⁶ the antisudorific properties of *Kickxia spuria*;³ the antirheumatic use of *Pistacia vera*,¹ *Lycopersicon esculentum*²⁵ and *Eucalyptus*;^{20,40} the antitussive property of orange peel;¹⁸ the hypotensive action of *Capsicum annuum*;⁵⁷ the vermifuge property of *Trigonella foenum-graecum*;³⁷ and finally the use of *Smilax aspera* against prostatic hypertrophy.¹³

For some traditional uses (see *Dipsacus fullonum* and *Hordeum vulgare*) there are superstitions concerning their therapeutic properties. In fact, the water from leaves of teasel must be gathered on Good Friday, while the barley seeds after sting of verruca must be thrown into water-well.

In conclusion, our results show that in Mussomeli area many wild plants are still in use by old people for the symptomatic treatment of several ailments. Many phytotherapeutical applications in this area coincide with those of other parts of Italy. However, some herbs used in Mussomelian area, deserve further study.

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REFERENCES

1. Barbagallo C., Longhitano N., Meli R., *Pubbl. Ist. Bot. Univ. Catania* 1979, 1 (1979).
2. Giani S., "Le piante medicinali delle isole Eolie", Pungitopo, Marina di Patti, 1988, pp 1-104.
3. Ilardi V., Raimondo F.M., *Quad. Bot. Ambientale Appl.* 3, 41 (1992).

4. Lentini F., *Studi Urbinati* 29, 151 (1987).
5. Lentini F., Amenta R., *Giorn. Bot. Ital.* 126, 371 (1992).
6. Lentini F., Raimondo F.M., *Quad. Bot. Ambientale Appl.* 1, 103 (1990).
7. Lentini F., Venturella G., *Atti Acc. Sc. Lett. Arti Palermo* 48, 115 (1989).
8. Maravigna C., *Atti Acc. Gioenia Sc. Nat. Catania* 3, 77 (1826).
9. Raimondo F.M., Lentini F., *Naturalista Sicil.* 3-4, 77 (1990).
10. Ventimiglia L., "Nomenclatura siciliana dei vegetali erbacei più comuni", Tipografia Di Cristina L., Palermo, 1903, pp 1-62.
11. Bruno F., Bonomo R., Di Martino A., *Lav. Ist., Bot., Giard. Col. Palermo* 17, 131 (1959).
12. Atzei A.D., Drascich Campazzi L., *Boll. Soc. Sarda Sci. Nat.* 26, 209 (1988).
13. Atzei A.D., Orioni S., Sotgiu R., *Boll. Soc. Sarda Sci. Nat.* 28, 137 (1991).
14. Barone R., *Webbia* 17, 329 (1963).
15. Cappelletti E.M., Cirio M.E., Mutti L., *Atti Ist. Ven. Sci., Lett. Arti, Cl. Sci. Fis., Mat. Nat.* 137, 113 (1979).
16. Cappelletti E.M., Fanzago N., *Studi Trent. Sci. Nat., Acta Biologica* 66, 17 (1990).
17. Coassini Lokar L., Poldini L., *J. Ethnopharmacol.* 22, 231 (1988).
18. Corsi G., Gaspari G., Pagni A.M., *Atti Soc. Tosc. Sci. Nat., Mem.* 87, 309 (1980).
19. Corsi G., Pagni A.M., *Webbia* 33, 159 (1978).
20. De Feo V., Ambrosio C., Senatore F., *Fitoterapia* 63, 337 (1992).
21. De Feo V., Aquino R., Menghini A., Ramundo E., Senatore F., *J. Ethnopharmacol.* 36, 113 (1992).
22. Gastaldo P., Barberis G., Fossati F., *Atti Acc. Ligure Sci. Lett.* 35, 125 (1979).
23. Guarrera P., *Rivista Italiana E.P.P.O.S.* 63, 220 (1981).
24. Guarrera P., Castellacci A.M., Tacconi M., *Agricoltura Ambiente* 24, 47 (1984).
25. Leporatti M.L., Pavesi A., *Webbia* 43, 269 (1989).
26. Leporatti M.L., Pavesi A., Posocco E., *J. Ethnopharmacol.* 14, 53 (1985).
27. Tomaselli R., Balduzzi A., Filipello S., *Collana Verde* 33, 5 (1973).
28. Tutin T.G., Burges N.A., Chater A.O., Edmondson J.R., Heywood V.H., Moore D.M., Valentine D.H., Walters S.M., Webb D.A., "Flora Europaea", 1, Cambridge University Press, Cambridge, 1993.
29. Tutin T.G., Heywood V.H., Burges N.A., Moore D.M., Valentine D.H., Walters S.M., Webb D.A., "Flora Europaea", 2-5, Cambridge University Press, Cambridge, 1968-1980.
30. Greuter W., Burdet H.M., Long G., "Med-Checklist", 1,3,4, Editions des Conservatoire et Jardin Botaniques de la Ville de Geneve, Geneve, 1984-1989.
31. Kramer K.U., Green P.S., "The families and genera of vascular plants", 1, Springer-Verlag, Berlin, 1990, pp 1-404.
32. Cronquist A., "The evolution and classification of flowering plants", The New York Botanical Garden, New York, 1988, pp 1-555.
33. Bolli R., "Dissertationes botanicae", Gebruder Borntraeger Verlagsbuchhandlung, Berlin Stuttgart, 1994, pp 1-227.
34. Dahlgren R.M.T., Clifford H.T., Yeo P.F., "The families of the monocotyledons", Springer-Verlag, 1985, pp 1-520.
35. AA.VV., "Segreti e virtù delle piante medicinali", Selezione dal Reader'Digest, Milano, 1980, pp 1-463.
36. Antonelli G., "Le piante che ridanno la salute", A.L.C.I., Roma, 1950, pp 1-491.
37. Benigni R., Capra C., Cattorini P.E., "Piante medicinali, Chimica, Farmacologia e Terapia", 1-2, Inverni e Della Beffa, Milano, 1962-1964, pp 1-1832.
38. Gastaldo P., "Compendio della flora officinale italiana", Piccin, Padova, 1987, pp 1-525.
39. Palma L., "Le piante medicinali d'Italia", S.E.I., Torino, 1964, pp 1-838.
40. Pedretti M., "Chimica e farmacologia delle piante medicinali", Studio Edizioni, Milano, 1983, pp 1-159.
41. Pomini L., "Erboristeria italiana", Minerva Tecnica, Torino, 1959, pp 1-826.
42. Stroh H.H., *Naturwissenschaften* 45, 547 (1958).
43. Davidek J., *Nature* 189, 487 (1961).

44. Etkin N.L., *J. Ethnopharmacol.* 4, 75 (1981).
45. Longhi M.G., Rocchi P., Gezzi A., Castelpietra R., Curris B., *Fitoterapia* 55, 50 (1984).
46. Tschesche R., Wulff G., *Z. Naturforsch.* 20, 543 (1965).
47. Defago G., *Ber. Schweiz. Bot. Ges.* 87, 79 (1977).
48. Kimura J., Okuda H., Arichi S., *Planta Med.* 2, 132 (1985).
49. Augusti K.T., *Indian J. Physiol. Pharmacol.* 19, 218 (1975).
50. Giner R.M., Recio M.C., Cuellar M.J., Manez S., Peris J.B., Stubing G., Mateu I., Rios J.L., *Biochem Syst. Ecol.* 21, 613 (1993)
51. Gonzalez Collado I., Macias F.A., Massanet G.M., Rodriguez Luis F., *J. Nat. Prod.* 48, 819 (1985).
52. Malamas M., Marselos M., *J. Etnopharmacol.* 37, 197 (1992).
53. Gonzalez-Tejero M.R., Molero-Mesa J., Cesares-Porcel M., Martinez Lirola M.J., *J. Ethnopharmacol.* 45, 157 (1995).
54. Lallement-Guilbert N., Bezanger-Beauquesne L., *Pl. Med. et Phytotherapie* 4, 92 (1970).
55. Bonomo R., Colombo P., Princiotta R., *Naturalista Sicil.* 3-4, 135 (1978).
56. Shirwaikar A., Sreenivasan K.K., *Fitoterapia* 67, 200 (1996).
57. De Feo V., Senatore F., *J. Ethnopharmacol.* 39, 39 (1993).