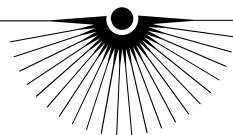


æther

HERBALIST & APOTHECARY

SPECIALITY & WILD HARVESTED HERBALS



EDIBLE WEEDS & PIONEER PLANTS OF
SOUTHERN AFRICA

2019



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AT OUR BOTANICAL DISPENSARY WE INTEND TO EXPAND
PEOPLES HORIZONS TO THE MEDICINAL BENEFITS
OF PLANTS & MUSHROOMS FOUND
THROUGHOUT SOUTH AFRICA & THE WORLD.

KINDLY CONTACT US BELOW SHOULD YOU REQUIRE ANY ASSISTANCE OR TO REQUEST ANY
SCIENTIFIC PAPERS OR MEDICAL JOURNALS.

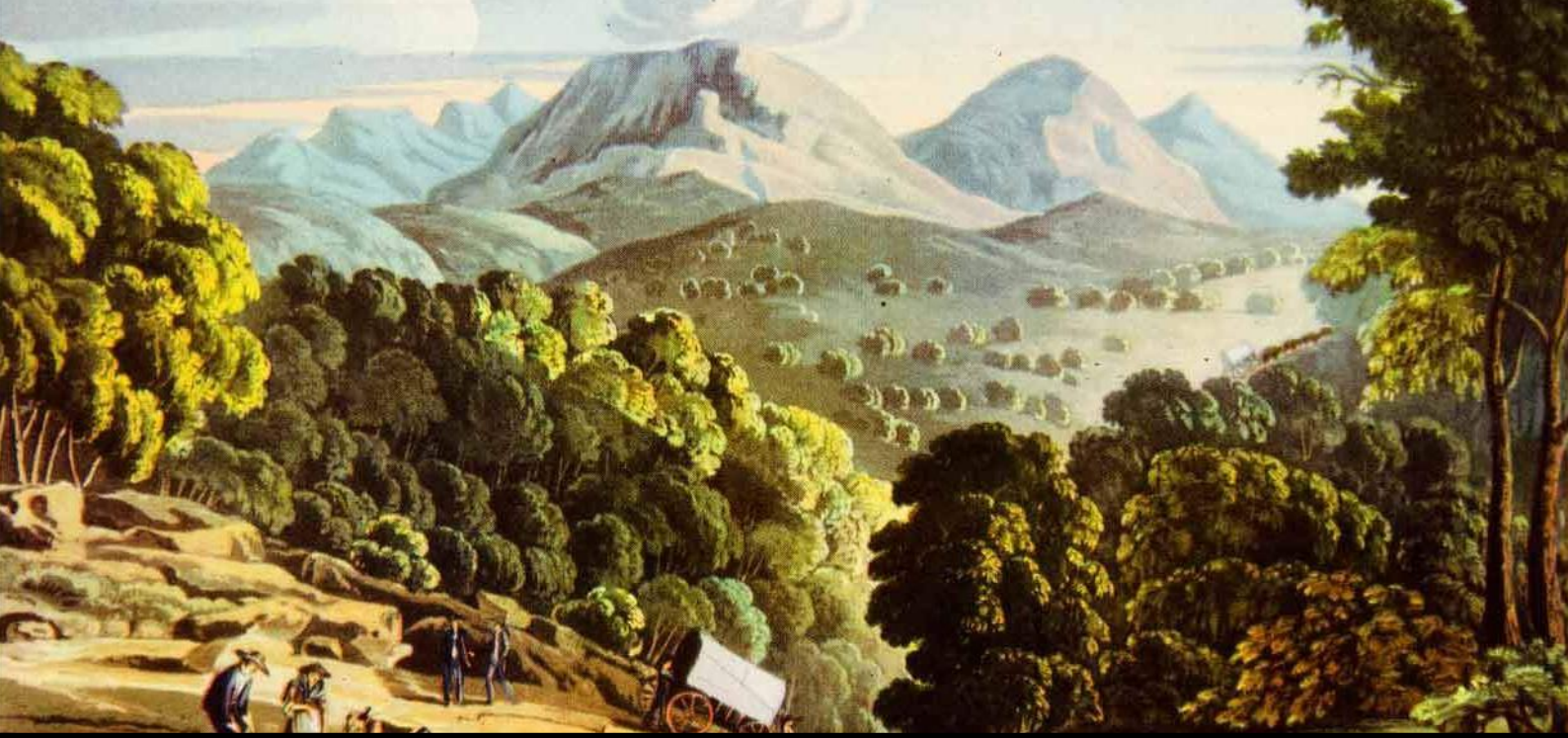
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TABLE OF CONTENTS

WHAT WE DO	01.
INTRODUCTION TO FORAGING HISTORY	02.
MODERN FORAGING	
ETHICAL HARVESTING	03.
PRECAUTIONS	04.
THE EDIBLE PLANTS	05.
AMARANTH	06.
BLACKJACK	07.
BLUE WATER LILY	08.
BRAMBLE BERRY	09.
BULRUSH	10.
BURR MEDIC	11.
CHICKWEED	12.
CHICORY	13.
DANDELION	14.
DEAD NETTLE	15.
DOCK	16.
DUNE SPINACH	17.
FERN	18.
GHAAP	19.
HOTTENTOTS FIG	20.
LAMBS QUARTERS	21.
MALLOW	22.
NASTURTIUM	23.
NUM NUM	24.
PLANTAIN	25.
PRICKLY PEAR	26.
PURSLANE	27.
SEA BEANS	28.
SHEEP'S SORREL	29.
SHEPHERDS PURSE	30.
SOW THISTLE	31.
SPEKBOOM	32.
STINGING NETTLE	33.
TARO	34.
TSAMMA	35.
VELDKOOL	36.
WATER BERRY	37.
WATER CRESS	38.
WATER BLOMMETJIES	39.
WILD BANANA	40.
WILD LETTUCE	41.
WILD MUSTARD	42.
WILD RADISH	43.
WOOD SORREL	44.
BACK TO OUR ROOTS	45.





WHAT WE DO

Aether Herbalist & Apothecary offers exceptional quality cultivated & wild-harvested herbs as well as mushrooms for those who desire to improve their health & wellbeing . By providing a full range of herbal formulations made from some of the best natural medicines in the world, we believe that our herbals can contribute in a profound and substantial way to the health of all those who seek a holistically improved level of wellbeing.

We supply many different options in our armamentarium including tinctures, powdered herbs, mushrooms & more

BELOW: SOME OF OUR STOCK - POWDERS, SALVES & TINCTURES



INTRODUCTION TO

FORAGING HISTORY:

GATHERING IS IN OUR BLOOD, AS A SPECIES WE HAVE BEEN FORAGING OUR FOOD SINCE THE DAWN OF OUR EXISTENCE.

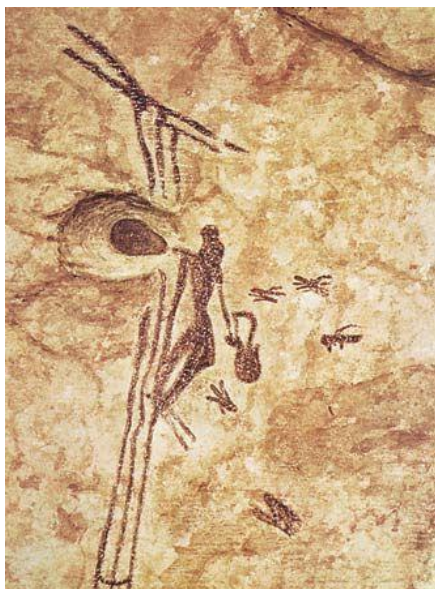
FORAGING IS WITHOUT A DOUBT ONE OF THE MAIN REASONS WHY WE FLOURISH THE WAY WE DID - WHEN HUNTING WAS LESS FRUITFUL WE TURNED TO AN ENORMOUS INVENTORY OF NUTRITIOUS, LIFE PROVIDING EDIBLES - LEAVES AND ROOTS, BERRIES, FRUIT, SEEDS AND NUTS ALL CONTRIBUTED TO THE RAPID GROWTH OF PREHISTORIC MANS GREY MATTER, FUELLING COGNITIVE AS WELL AS MUSCULAR GROWTH. BY LIVING ON THESE DENSE FOODS WE GAVE THE BODY UNMATCHED NUTRIENTS IN ABUNDANT QUANTITIES - THUS WITHOUT WILD FOODS WE WOULD NOT BE WHO WE ARE TODAY.

IN PRIMORDIAL TIMES, POPULATIONS PICKED WILD, EDIBLE PLANTS IN ORDER TO PROVIDE FOR THEIR FOOD NEEDS.

THESE FOODS WERE HARVESTED ACCORDING TO THE SEASON. NUTS AND ROOTS WERE GATHERED TO BE PRESERVED WHILE FRESH FRUIT AND VEGETABLES WERE CONSUMED IMMEDIATELY. THERE WERE AMPLE AMOUNTS OF LEAFY GREENS & AQUATIC PLANTS THROUGHOUT THE YEAR ALLOWING MAN AN ALMOST ENDLESS SOURCE OF FOOD.

ABOVE RIGHT:
WICKER BASKETS AND BAGS ARE IDEAL FOR FORAGING, THIS ALLOWS THE PLANTS TO BREATHE

RIGHT: 8000 YEAR OLD CAVE PAINTING DEPICTING A PERSON FORAGING HONEY FROM WILD BEES



DURING THE NEOLITHIC REVOLUTION, NOMADIC TRIBES SETTLED AND BEGAN TO DOMESTICATE PLANTS AND ANIMALS. AGRICULTURE AROSE WITH THE DAWN OF THE FIRST HUMAN CIVILIZATIONS AND 'FORAGING' WAS PUSHED TO THE SIDE BY FARMING.

WITH THE ADVENT OF AGRICULTURAL FARMING WE SAW A BOOM IN POPULATIONS, AND AN ASSAULT ON NATURAL ECOSYSTEMS. LAND WAS TILLED TO MAKE WAY FOR MONO-CROPPING OF SOUGHT AFTER FOREIGN FOODS, FORCING INDIGENOUS EASY TO GROW PLANTS FAR FROM KITCHEN TABLES - HOWEVER FEW REMAINED RELIANT UPON THE REGULAR PICKING OF WILD EDIBLES.

IN THE 19TH CENTURY, WITH THE APPEARANCE OF ALLOTMENTS AND AN INCREASING NUMBER OF PRIVATE GARDENS IN WESTERN CITIES FORAGING SAW A REVIVAL. BOTANY BECAME A RESPECTED PROFESSION AND MANY SPECIALIST PUBLICATIONS ON THE SUBJECT OF PLANTS AND THEIR BENEFITS POPULARISED THE AGE OLD PRACTICE OF GATHERING YOUR OWN FOOD.

HARVESTING QUICKLY BECAME A LEISURE ACTIVITY ENJOYED BY CITY-DWELLERS WHEN VISITING THE COUNTRYSIDE - THIS NOURISHED AN INNATE DESIRE PRESENT IN OUR SPECIES TO CONNECT WITH THE LAND AND PROVIDE SUSTENANCE TO OURSELVES AND COMMUNITIES. HOWEVER, THE PRACTICE WAS PROMPTLY RESTRICTED, HARVESTING WAS PROHIBITED IN MANY AREAS AROUND THE WORLD AND IN SEVERE CASES HARVESTERS COULD FACE FINES AND EVEN JAIL TIME IF CAUGHT PICKING WILD EDIBLES.

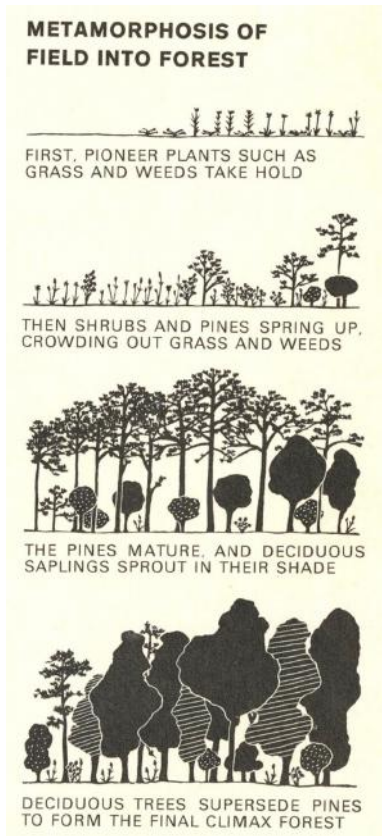
WEEDS & PIONEER PLANTS:

“WEEDS” HAVE ALWAYS BEEN A PECULIAR TOPIC WHEN IT COMES TO THE NATURAL WORLD. THE PRESENT UNDERSTANDING OF A WEED IS A PLANT THAT IS NOT VALUED WHERE IT IS FOUND AND IS USUALLY OF VIGOROUS GROWTH - WE PULL THESE PLANTS UP AS SOON AS WE SEE THEM, JUST TO AWAIT THEIR RETURN A FEW DAYS LATER, WE DESPISE THIS CYCLE, YET MILLIONS OF PEOPLE GO RIGHT BACK TO PULLING OUT THIS SAME PLANT CURSING IT IN THE PROCESS.

THESE WEEDS OR RATHER “PIONEERING PLANTS” AS NATURALIST WOULD PREFER TO CALL THEM ARE HARDY, TENACIOUS AND HAVE FOLLOWED MAN ON THEIR MANY EXPLORATIONS AROUND THE GLOBE - OVER SEAS, THROUGH JUNGLES AND EVEN UP MOUNTAINS. THEY’VE BEEN BY OUR SIDES AND FORTUNATELY SO BECAUSE THESE VERSATILE PLANTS BECAME THE STAPLE FOOD SOURCES IN DIETS, THEY WERE USED FOR CRAFTING, DYING OF FABRICS, AND AS FODDER FOR LIVESTOCK. PIONEERING PLANTS ARE THE FIRST TO COLONIZE BARREN LANDSCAPES AND SOME EVEN MANAGE TO THRIVE ON ROCKS OR CONCRETE WITH LITTLE TO NO PRESENCE OF SOIL.

BELOW LEFT: A WOMAN BURNING WEEDS, 1830-75
JEAN-FRANÇOIS MILLET

BELOW RIGHT: WEEDS CREATE ECOSYSTEMS



ABOVE: DANDELION GROWING WHERE NOTHING ELSE CAN GROW

FAR ABOVE: WEEDS ARE A VIABLE FOOD SOURCE AS THEY ARE ABUNDANT AND EXCEPTIONALLY TASTY

ABOVE: SPARE THE WEEDS - TURRELL, ARTHUR, 1846-1898

MODERN ETHICAL FORAGING :

WE ARE EXPERIENCING A RESURGENCE OF FORAGING, MANY PEOPLE AROUND THE GLOBE ARE RETURNING TO A MINDSET OF GATHERING THEIR FOODS LOCALLY & SUSTAINABLY THEMSELVES.

SOUTH AFRICA IS HOME TO AN ABUNDANCE OF EDIBLE PLANTS, A LOT OF THEM GROW JUST OUTSIDE OUR FRONT DOORS MAKING THESE RUGGED PLANT SPECIES AN OBVIOUS CHOICE FOR MODERN DAY MAN WHEN IT COMES TO FOOD.

BY ETHICALLY HARVESTING ONLY WHAT WE NEED WE ENCOURAGE THE PROLIFERATION OF THESE PIONEERING SPECIES, THIS IN TURN FIXES SOILS, BRINGS IN ANIMALS AND MICRO-ORGANISMS AND THUS ALLOWS MORE PLANT SPECIES TO ESTABLISH AND A BOUNTIFUL ECOSYSTEM TO DEVELOP AND THRIVE. WE URGE ALL TO EAT YOUR WEEDS.

PRECAUTIONS



ABOVE: SOUTH AFRICAN TRADITIONAL KNOWLEDGE OF EDIBLE PLANTS IS PERHAPS THE MOST VARIED IN THE WORLD DUE TO OUR MANY CLIMATE VARIATIONS

WHILE THE VAST MAJORITY OF PLANTS IN SOUTH AFRICA ARE EITHER EDIBLE OR NON TOXIC, THERE ARE A FEW TOXIC ONES THAT WE NEED TO BE AWARE OF. IF YOU CAN'T CLEARLY IDENTIFY A PLANT AND YOU DON'T NEED FOOD URGENTLY IT IS BETTER TO STEER CLEAR FROM IT.

THE EDIBLES IN THIS BOOK HOWEVER ARE EASY TO IDENTIFY AND HAVE BUT A FEW LOOK ALIKES. THEY ARE EASY TO LOCATE IN THE WILD, HOWEVER IF YOU CANNOT FIND THESE PLANTS A UNIVERSAL EDIBILITY TEST CAN BE CONDUCTED

PLEASE SEE TOXIC PLANTS OF SOUTHERN AFRICA FOR PLANTS THAT CANNOT BE CONSUMED


UNIVERSAL EDIBILITY TEST:

- FAST FOR EIGHT HOURS TO INSURE THAT TEST RESULTS ARE ACCURATE AND ANY REACTION COMES FROM THE PLANT INGESTED RATHER THAN AN UNKNOWN SOURCE.
- SEPARATE THE PLANT YOU'RE TESTING DURING THIS EIGHT HOUR FAST. YOU'LL WANT THE LEAVES SEPARATE FROM THE STEM AND ANY FLOWERS SEPARATED AS WELL.
- TEST FOR REACTION BY PLACING ONE PORTION OF THE PLANT AGAINST YOUR LIPS. WAIT FIFTEEN MINUTES TO SEE IF YOU REACT. IF THERE IS NO STINGING OR BURNING, YOU CAN CONTINUE.
- PLACE THE PORTION YOU'RE TESTING AGAINST YOUR TONGUE. DO NOT CHEW OR SWALLOW. WAIT FIFTEEN MINUTES TO SEE IF YOU REACT. IF YOU DO NOT, YOU CAN TEST ANOTHER PORTION OF THE PLANT IN THE SAME WAY. CONTINUE UNTIL ALL SECTIONS HAVE BEEN TESTED.
- REACTING DURING ANY PART OF THIS TEST MEANS THE PLANT PORTION HAS FAILED THE UNIVERSAL EDIBILITY TEST AND IS NOT SAFE FOR INGESTING.
- PLACE A SMALL AMOUNT IN YOUR MOUTH AND CHEW, BE SURE YOU DO NOT SWALLOW AT THIS TIME. WAIT THREE MINUTES. IF THERE IS NO REACTION, YOU CAN CONTINUE THE TEST.
- SWALLOW THE PORTION OF THE PLANT YOU'VE CHEWED AND WAIT EIGHT HOURS. DURING THAT TIME FRAME, IF YOU EXPERIENCE ANY REACTION, INDUCE VOMITING TO REMOVE THE TOXINS FROM YOUR SYSTEM. IF THERE IS NO REACTION, YOU CAN CONTINUE THE TEST.
- PREPARE A 1/4 CUP OF THE PLANT PORTION AND EAT. WAIT AN ADDITIONAL EIGHT HOURS. AGAIN, IF YOU REACT AT ALL, INDUCE VOMITING. IF THERE IS NO REACTION, THAT PORTION OF THE PLANT IS SAFE TO EAT AND HAS PASSED THE UNIVERSAL EDIBILITY TEST.
- TEST EACH PART OF THE PLANT FOR EDIBILITY. JUST BECAUSE ONE PART IS SAFE TO INGEST DOES NOT MEAN THAT OTHER SECTIONS OF THE PLANT ARE SAFE TO INGEST. EACH PORTION NEEDS TO BE TESTED SEPARATELY TO INSURE THAT YOU ARE DEALING WITH AN ENTIRELY EDIBLE WILD PLANT.



THE EDIBLE PLANTS

These are over 45 plants that stand out to us as the the best wild harvested edibles in Southern Africa. They are easy to identify, highly nutritious, and exceptionally abundant making them a valuable food source for those in need or those looking to add variety into their dishes.



AMARANTH

Latin: *Amaranthus hybridus*

Other Names: marog, pigweed, misbredie

AMARANTH PLANTS ARE BY FAR THE MOST OVERLOOKED WEEDS IN THE WORLD. THERE ARE MORE THAN 60 SPECIES IN THIS GENUS - ALL OF WHICH ARE EDIBLE, HOWEVER SOME TYPES ARE PREFERABLY GROWN FOR SEED PRODUCTION, WHILE OTHERS ARE GROWN FOR THEIR HIGHLY NUTRITIOUS LEAVES, 20 OF WHICH GROW NATURALLY AS WEEDS IN SOUTH AFRICA.

AMARANTH IS A RELATIVELY EASY PLANT TO IDENTIFY - AMARANTH SPECIES ARE ERECT OR SPREADING ANNUALS WITH A ROUGH OR PRICKLY APPEARANCE, GROWING UP TO 2M IN HEIGHT. FLOWER, LEAF AND STEM COLOUR IS USUALLY GREEN, HOWEVER MAROON OR CRIMSON COLOURING IS ALSO COMMON IN ALL THREE PLANT PARTS. THE LEAVES ARE ALTERNATE, WITH SEVERAL GROOVES RUNNING THROUGH THEM, COLORING IS GREEN OR PURPLE, WITH SLENDER STALKS. TINY FLOWERS ARE BORNE IN DENSE, ELONGATED CLUSTERS ON THE TIPS OF THE BRANCHES. MANY SPECIES PRODUCE SEEDS WHICH ARE USUALLY SHINY BLACK IN COLOR. PROLIFERATION IS EASY AS UP TO 3 000 SEEDS CAN BE FOUND IN EVERY 5 GRAM



AMARANTH LEAVES ARE HIGHLY NUTRITIOUS AND ARE A VALUABLE SOURCE OF PROTEIN AND VITAMINS. THE PROTEIN CONTENT VARIES BETWEEN 26 & 30 PER CENT MEANING THAT EACH 100G PORTION CAN PROVIDE HALF OUR DAILY RECOMMENDED ALLOWANCE OF PROTEIN, AS WELL AS 5 TIMES OUR DAILY ALLOWANCE OF IRON, 70 PER CENT OF THE CALCIUM NEEDED AND UP TO 20 TIMES THE RECOMMENDED INTAKE OF VITAMIN A.

AMARANTH LEAVES ALSO HAVE THE HIGHEST CONCENTRATIONS OF VITAMIN-K OF ALL THE EDIBLE LEAFY-GREENS, PROVIDING UP TO 950 PER CENT OF OUR DAILY REQUIREMENTS. THE LEAVES ALSO STORE AMPLE AMOUNTS OF B-COMPLEX VITAMINS AND POTASSIUM.



FAR LEFT AND BELOW LEFT: SMOOTH AMARANTH STEMS CAN BE RED OR GREEN AND HAVE PURPLE FLOWERS

LEFT AND BELOW RIGHT: A. CRUETUS HAS RICH PURPLE LEAVES



BLACK JACK

Latin: *Bidens pilosa*

Other Names: knapsakkerwel, cobbler's pegs, spanish needles

BLACK JACK WITH ITS WELL KNOWN BLACK FRUITS THAT CLING PERSISTENTLY, IS A COSMOPOLITAN WEED THAT GROWS THROUGHOUT SOUTHERN AFRICA. THIS AMAZING PLANTS INGENUITIVE SEED DISPERSAL SYSTEM HAS CAUSED IT TO BECOME A NUISANCE - HOWEVER NOT MANY KNOW THAT THE YOUNG SHOOTS AND LEAVES ARE POPULAR FOODS IN TRADITIONAL ZULU & XHOSA CULTURE

BLACK JACKS STEMS GROW UP TO 1M IN HEIGHT, THEY ARE RAMIFIED, HAIRLESS, AND MOST NOTABLY ARE SQUARE IN APPEARANCE. THE LEAVES ARE OPPOSITE AND ARE DIVIDED INTO 3 TO 5 LEAFLETS WITH TOOTHED MARGINS. THE FLOWERS THIS WEED PRODUCES ARE BORNE ON LONG, SLENDER STALKS, THEY ARE SMALL, WHITE AND YELLOW IN COLOR AND ARE 5 TO 15 MM IN DIAMETER. WITHOUT A DOUBT THE EASIEST WAY TO IDENTIFY BLACK JACK IS BY IT TENACIOUS DRY, PRONGED FRUITLET WHICH ARE ABLE TO CLING TO CLOTHING OR ANIMALS' FUR.

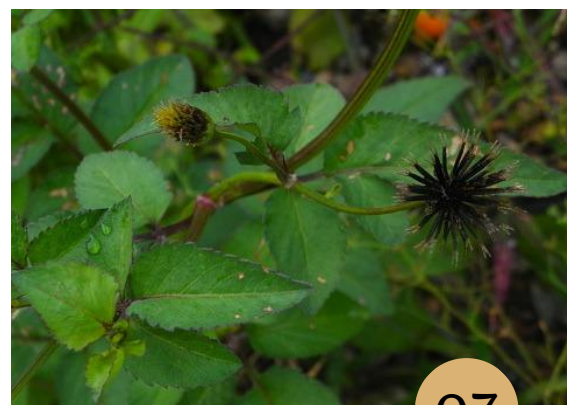
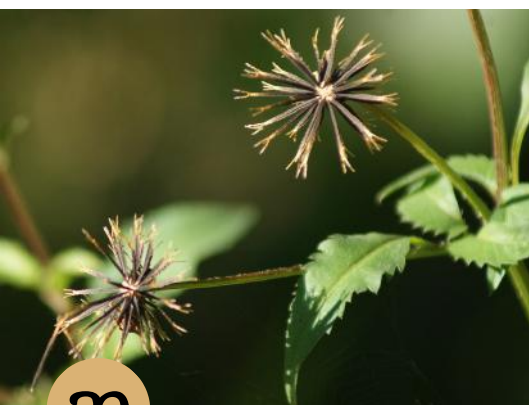
BLACK JACK IS A HIGHLY NUTRITIOUS & ABUNDANT FOOD SOURCE THAT IS A WELCOME ADDITION TO ANY DIET DUE TO ITS HIGH FIBER STEMS AND WHOLESOME LEAVES. JUST 100G OF DRIED LEAVES CAN PROVIDE UP TO ONE THIRD OF THE PROTEIN WE NEED ON A DAILY BASIS AND OVER 100 PER CENT OUR DAILY REQUIREMENT OF CALCIUM. THERE ARE ALSO TRACE AMOUNTS OF VITAMIN A & VITAMIN C PRESENT IN THIS PLANT.



BLACK JACK LEAVES CAN BE EATEN RAW OR PREPARED AND EATEN LIKE ANY OTHER LEAFY GREEN VEGETABLES. IT IS IMPORTANT TO NOTE THAT BLACKJACK ALSO CONTAINS HIGH LEVELS OF BETA-CAROTENE AND VITAMIN E, WHICH ARE FAT-SOLUBLE NUTRIENTS, THUS HEALTHY OIL MUST BE CONSUMED IN CONJUNCTION WITH THIS PLANT IN ORDER TO IMPROVE NUTRIENT ABSORPTION.

BELOW RIGHT: BLACK JACK FRUITLETS ARE EASY TO IDENTIFY WITH THEIR DRY OUTER SKIN AND FORK LIKE HOOKS

BELOW: BLACK JACK HAS VERY NOTABLE CHARACTERISTICS INCLUDING ITS DAISY LIKE FLOWERS AND BRAMBLE LIKE LEAVES



BLUE WATER LILY

Latin: *Nymphaea* spp.

Other Names: pond lily, tswii,
beaver root

THIS WELL KNOWN AQUATIC PLANT IS TRULY A SIGHT TO BEHOLD - WATERLILY'S ARE VERY COMMON, OFTEN SPOTTED IN PONDS AND LAKES THROUGHOUT THE COUNTRY.

THEY ARE RELATIVELY EASY TO IDENTIFY DUE TO THEIR BRIGHT COLORS. THE LILY IS FIXED INTO MUD FROM BRANCHED ROOTS WITH LONG STEMS AND HAVE LARGE, ROUND (TYPICALLY NOTCHED) LEAVES THAT FLOAT ON THE SURFACE OF THE WATER. THE LILY'S LEAVES HAVE A WAXY, WATERPROOF UPPER COATING. THEY HAVE LARGE, MANY-PETALED, FRAGRANT FLOWERS THAT ARE USUALLY WHITE OR BLUE (SOMETIMES PINK) WITH PROMINENT YELLOW STAMENS IN THE CENTER. THE ONLY LOOK-ALIKE THAT A WATER LILY CAN BE CONFUSED WITH IS THE WATER LOTUS HOWEVER THE BIGGEST DIFFERENCE IS THAT THE LILIES LEAVES AND FLOWERS BOTH FLOAT ON THE WATER'S SURFACE WHILE LOTUS LEAVES AND FLOWERS ARE EMERGENT, OR RISE ABOVE THE WATER'S SURFACE - SOMETIMES UP TO 6FT HIGH



THE FLOWERS AND FRUIT ARE EDIBLE RAW OR COOKED. THE STEM TUBERS OR RHIZOMES ARE BY FAR THE MOST IMPORTANT PART OF THE PLANT DUE TO THEIR HIGH NUTRITION CONTENT AND CARBOHYDRATE VALUE - TRADITIONALLY THEY ARE PEELED AND EATEN FRESH OR COOKED LIKE A POTATO

THE YOUNG LEAVES AND UNOPENED FLOWER BUDS CAN ALSO BE BOILED AND SERVED AS A VEGETABLE. THE SEEDS ARE HIGH IN STARCH, PROTEIN, AND FATTY OILS - USUALLY CONSUMED BY PARCHING, AND THEN GRINDING INTO FLOUR.

LEFT: WATER LILY FRUIT ARE HIGHLY NUTRITIOUS AND FILLED WITH TASTY EDIBLE SEEDS.

RIGHT & BELOW: WATER LILY RHIZOME CAN BE EATEN RAW OR COOKED, THE FLOWER HEADS ARE ALSO EADIBLE



BRAMBLE BERRY

Latin: Rubus spp.

Other Names: wild bramble,
blackberry

WILD BRAMBLE BERRIES ARE SOME OF THE MOST COMMONLY HARVESTED WILD BERRIES IN SOUTH AFRICA, AND WITH GOOD REASON. THEIR FRUITS ARE WONDERFUL WILD EDIBLES PACKED WITH NUTRITION AND AN ENERGIZING SOUR TASTE.

THERE ARE 17 SPECIES OF OF BRAMBLE KNOWN IN SOUTH AFRICA - SOME BEING INDIGENOS AND SOME EXOTIC. BRAMBLE BERRIES ARE EXTREMELY POPULAR BECAUSE, EVEN THOUGH THEY HAVE MANY LOOKALIKES, NONE OF THOSE LOOKALIKES ARE DANGEROUS.

BRAMBLE ARE SPRAWLING SHRUBS WITH SHARP, HOOKED THORNS ON LONG TRAILING BRANCHES. THEY BEAR COMPOUND LEAVES. MOST HAVE THREE-TOOTHED LEAFLETS THAT ARE CHARACTERISTICALLY SERRATED WITH WHITE HAIR ON THE UNDERSIDE. FLOWERS ARE USUALLY WHITE WITH YELLOW OR PINK STAMENS, RED BERRIES FOLLOW THAT BECOME PURPLE AS THEY MATURE. THE BERRY'S WHITE RECEPTACLE ALSO COMES AWAY FROM THE BUSH ALONG WITH THE FRUIT WHEN PICKED.



YOUNG SHOOTS CAN BE PEELED AND EATEN AS VEGETABLES AND THE SEEDS ARE RICH IN OMEGA-3 & 6 THEY ALSO CONTAIN HIGH LEVELS PROTEIN PER GRAM

BRAMBLE FRUIT IN PARTICULAR CONTAIN SIGNIFICANT CONTENTS OF DIETARY FIBER, VITAMIN C, AND VITAMIN K. 100G SERVINGS OF RAW BERRIES CAN PROVIDE UP TO 25% OF OUR DAILY FIBER REQUIREMENT, 25% VITAMIN C AND 19% OF THE VITAMIN K WE NEED.

RIGHT: BRAMBLE BERRIES HAVE A CENTRAL WHITE RECEPTACLE THAT STAYS LOGGED WHEN THE FRUIT IS PICKED

RIGHT: BRAMBLE LEAVES ARE TEND TO BE SERRATED WITH WITH FINE WHITE HAIRS PRESENT ON THE UNDERSIDE

LEFT: FLOWERS COME IN VARIATIONS OF WHITE OR PINK WITH RED BERRIES THAT BECOME PURPLE AS THEY MATURE



BULRUSH

Latin: *Typha capensis*

Other Names: cattail, reed mace, ibhuma

BULRUSH SPECIES ARE SOME OF THE MOST IMPORTANT AND BY FAR THE MOST COMMON AQUATIC FOODS IN THE WORLD. BULRUSH IS A WELL KNOWN PLANT OF WET PLACES, WITH RIBBON LIKE LEAVES AND UNMISTAKABLE FLOWER HEADS.

THE LEAVES ARE FLAT, BETWEEN 1 - 3 METERS LONG, THEY SURROUND STOUT LONG STALKS WITH EASILY RECOGNIZABLE BROWN CIGAR-SHAPED FLOWERS. THE FLOWERS CONSISTS OF TWO PARTS, A FEMALE AND MALE FORMATION NEAR TOP OF THE STEM MADE UP OF TINY, DENSELY-PACKED PISTILLATE (FEMALE) FLOWERS. A THIN YELLOW SPIKE THEN EXTENDS ABOVE THE FEMALE PART CALLED THE STAMINATE (MALE) WHICH HOUSES THE POLLEN. THE BULRUSH PLANT IS HIGHLY VERSATILE, OFTEN USED TO MAKE MATS & BASKETS. THE FEMALE FLOWER HEAD CAN BE USED AS A TORCH OR A FIRE STARTER DUE TO ITS HIGH FLAMMABILITY LEVELS. THE FLUFFY WOOL PRODUCED BY THE FLOWERS ARE USED FOR DIAPERS, AND AS INSULATION IN CLOTHING, PILLOWS, & MATTRESSES



THIS FAMOUS AQUATIC GRASS IS ALSO A GREAT WILD FOOD - THE LOWER PARTS OF THE LEAVES CAN BE USED IN SALADS; THE YOUNG STEMS MAY BE EATEN RAW OR BOILED; AND YOUNG FLOWERS CAN BE ROASTED. THE YELLOW POLLEN IS A HIGH PROTEIN FOOD SOURCE & THE ROOT CAN BE DRIED AND POUNDED TO MAKE NUTRITIOUS FLOUR.

CATTAILS ARE EASY TO IDENTIFY AND HIGHLY ABUNDANT MAKING THEM GREAT SURVIVAL FOODS OR JUST A ADDED BOOST TO DAILY NUTRITION



FAR RIGHT: BULRUSH FLOWERS WITH A DARKER FEMALE SECTION AT THE BOTTOM & MALE PORTION ENROBED WITH POLLEN

BELOW: BULRUSH ROOTS CAN BE USED AS A FOOD



BURR MEDIC

Latin: *Nymphaea* spp.

Other Names: burr clover, toothed medic, burr weed

BURR MEDIC IS A NATIVE OF EUROPE BUT THANKFULLY SETTLED IN SOUTH AFRICA AS AN ANNUAL WEED, ALLOWING MANY HUMANS AS WELL AS ANIMALS ACCESS TO A STAPLE YEAR ROUND FOOD.

BURR MEDIC IS A LOW-GROWING, ALMOST HAIRLESS, SPRAWLING HERB WITH TINY TOOTHED LEAVES DIVIDED INTO 3 KITE-SHAPED LEAFLETS. ITS HAS DAINTY, YELLOW, PEA-TYPE FLOWERS WITH PETALS THAT ARE ONLY 3-5 MM LONG - THESE FORM INTO GREENISH-BROWN BURRS OR SEED PODS THAT OFTEN GET TANGLED IN FUR OR CLOTHING



THE LEAVES OF THIS PLANT ARE THE MOST NUTRITIOUS AND ARE OFTEN EATEN BY LIVESTOCK. EACH 100G OF BURR MEDIC HAS ABOUT 23.3 GRAMS OF PROTEIN, AND 3.3 GRAMS OF FIBER. IT ALSO CONTAINS 1330 MG OF CALCIUM, 300 MG OF PHOSPHORUS, 450 MG OF MAGNESIUM AND 2280 MG OF POTASSIUM.

THIS ANCIENT WEED IS PART OF THE ALFALFA FAMILY AND THUS LIKE ALFALFA IT CONTAINS L-CANAVANINE. THOUGH NO DOCUMENTED TOXICITY HAS BEEN NOTED WE SUGGEST HEATING THIS PLANT TO DESTROYS ITS POTENTIAL HARMFUL ACTIVITY.



ABOVE LEFT: SPOTTED VARIETIES HAVE BEEN SEEN IN SOUTH AFRICA TOO

LEFT AND BELOW: BURR MEDIC VAGUELY RESEMBLES CLOVER HOWEVER YELLOW FLOWERS ARE PRESENT AS WELL AS TOOTHED SEED PODS KNOWN AS BURRS



CHICKWEED

Latin: *Stellaria media*

Other Names: satin flower,
winterweed

CHICKWEED IS WITHOUT A DOUBT ONE OF THE BEST TASTING WILD LEAFY GREENS. THIS EASY TO SPOT GROUND COVER ARRIVED IN SOUTH AFRICA WITH THE EARLY SETTLERS, IT HAS SINCE BECOME A COSMOPOLITAN AS WELL AS FIELD WEED PARTICULARLY FOUND IN DAMP SHADED AREAS.

THIS PIONEERING PLANT PRODUCES STRINGY BUT SUCCULENT STEMS THAT CAN GROW UP TO 30CM IN LENGTH. CHICKWEED CREATES LUSH GREEN MATS STUDDED WITH SMALL, STAR-SHAPED FLOWERS. THE FLOWERS APPEAR TO HAVE 10 TINY SEGMENTS HOWEVER THEY ACTUALLY CONSIST OF FIVE DOUBLE-LOBED WHITE PETALS. CHICKWEED LEAVES OCCUR OPPOSITE EACH OTHER, ARE TOOTHLESS, AS WELL AS STALKLESS.

THE ENTIRE CHICKWEED PLANT IS EDIBLE INCLUDING THE LEAVES, STEMS, FLOWERS, SEEDS AND ROOTS



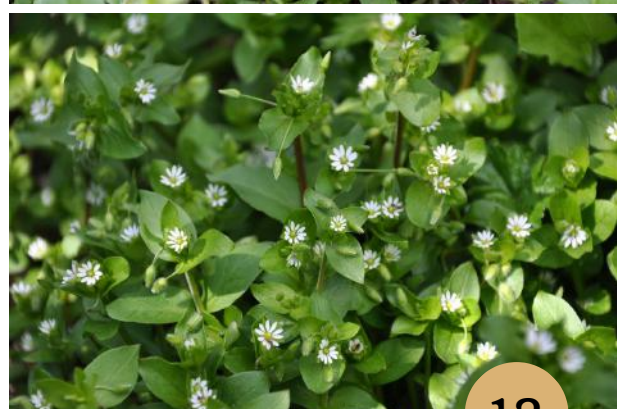
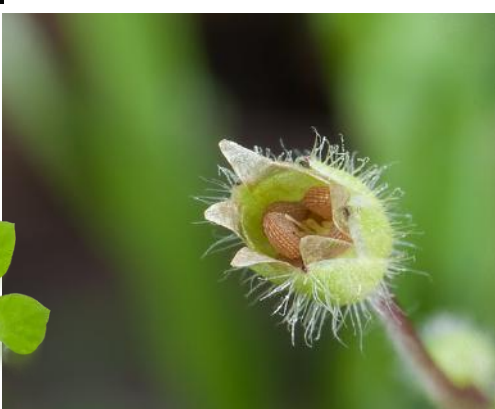
CHICKWEED IS VERY NUTRIENT DENSE HAVING 6 TIMES THE AMOUNT OF VITAMIN C, 12 TIMES MORE CALCIUM AND 83 TIMES MORE IRON THAN SPINACH PER GRAM. 14.5G OF PROTEIN CAN BE FOUND PER 100G SERVING, ALSO PRESENT ARE SIGNIFICANT AMOUNTS OF VITAMINS A, B COMPLEX, POTASSIUM, PHOSPHORUS, ZINC, MANGANESE, AND SILICA.

THE SEEDS THOUGH SMALL CAN BE GROUND INTO A POWDER AND USED IN MAKING BREAD OR TO THICKEN SOUPS AND CONTAINS 17.8% PROTEIN AND 5.9% FAT. CHICKWEEDS ARE BEST EATEN RAW DUE TO THEIR FRESH WATERY TASTE, HOWEVER THEY CAN ALSO BE PREPARED AT LOW HEATS.



RIGHT: DENSE MATS OF CHICK WEED LEAVES ARE EASY TO SPOT. NOTICE THEIR SUCCULENT TYPE LEAVES.

LEFT AND BELOW: CHICKWEED FLOWERS ARE MODEST IN SIZE WITH 5 DEEPLY GROOVED PETALS - OFTEN MISTAKEN AS 10



CHICORY

Latin: *Cichorium intybus*

Other Names: coffee weed, blue sailors

ORIGINALLY FROM EURASIA, CHICORY WAS INTRODUCED FOR MASS CULTIVATION INTO SOUTH AFRICA, BUT DUE TO ITS TENACITY TO SURVIVE IT QUICKLY SPREAD AND BECAME A RAMPANT BUT EASY TO IDENTIFY WEED.

CHICORY IS A BRANCHING, SCRAGGLY-LOOKING PLANT. IT OFTEN STANDS OUT ALONE IN GRAVEL AREAS, OR OPEN WEEDY FIELDS AND THE FLOWERS ONLY OPEN ON SUNNY DAYS. CHICORY FLOWERS ARE THE EASIEST PART OF THIS PLANT TO IDENTIFY DUE TO THEIR BEAUTIFUL PURPLE/BLUE ASTER COLOR, ONCE THEY START TO FILL OUT THE TALL LEAFED STEMS IT IS DIFFICULT TO CONFUSE IT FOR ANY OTHER PLANT. THERE ARE TWO ROWS OF INVOLUCRAL BRACTS AT ALTERNATING HEIGHTS - THE INNER ARE LONGER AND ERECT, WHILE THE OUTER ARE SHORTER AND SPREADING. LARGE, LOBED, AND HAIRY LEAVES SPREAD OUT AT THE BASE OF THE CHICORY PLANT AND SOMEWHAT RESEMBLE DANDELION. LOWER LEAVES HAVE DEEP LOBES AND ARE LANCE-LIKE AT THE BASE OF THE LEAF, AND LOBES LESSEN IN DEPTH TOWARD THE TIP OF THE LEAF.



THE ENTIRE CHICORY PLANT IS EDIBLE WITH THE LEAVES AND ROOT BEING MOST PRIZED - ALTHOUGH THE FLOWER IS EDIBLE TOO, IT IS QUITE BITTER.

YOUNG CHICORY LEAVES CAN BE ADDED INTO SALADS. THE FLOWER BUDS CAN BE PICKLED AND THE OPEN BLOOMS EATEN TOO. THE ROOT CAN BE ROASTED AND EATEN OR GROUND INTO A DELICIOUS CAFFEINE FREE COFFEE SUBSTITUTE. THE MATURE LEAVES CAN ALSO BE USED AS A COOKED GREEN VEGGIE.

BELOW: THE EIGHT LEAF BLADE SHAPES AND THEIR MIDRIB COLOR IN THE CHICORY FAMILY



LEFT: ONCE BLOOMING, BLUE CHICORY FLOWERS FILL THE ENTIRE STEM MAKING THE PLANT EASY TO SPOT



DANDELION

Latin: *Taraxacum officinale*
Other Names: lion's tooth,
bitterwort

DANDELION IS ONE OF THE MOST INFAMOUS LAWN WEEDS IN THE WORLD. EVERYONE RECOGNIZES THE CONSPICUOUS YELLOW FLOWERS, BUT FEW CORRECTLY IDENTIFY IT & EVEN FEWER ARE AWARE OF ITS HIGH NUTRITIONAL CONTENT.

TRUE DANDELION HAS A HANDFUL OF LOOK-ALIKES HOWEVER ALL ARE EDIBLE. THE COMMON WEED SPECIES CONFUSED WITH DANDELION ARE CATSEAR, HAWKSBEARD & HAWKBIT. ALL FOUR WEEDS GROW AS ROSETTES, WITH UPRIGHT FLOWER-STEMS TOPPED BY YELLOW FLOWERS. CATSEAR & HAWKBIT HAVE HAIRY LEAVES, WHEREAS DANDELION & HAWKSBEARD HAVE LEAVES WITH ALMOST NO HAIRS. CATSEAR & HAWKSBEARD HAVE BRANCHED FLOWER STEMS WHEREAS HAWKBIT & DANDELION FLOWER STEMS ARE UNBRANCHED. THE FLOWER STEM OF DANDELION IS FLESHY & HOLLOW WHEREAS THAT OF THE OTHERS TENDS TO BE THINNER, MORE WIRY & NOT HOLLOW

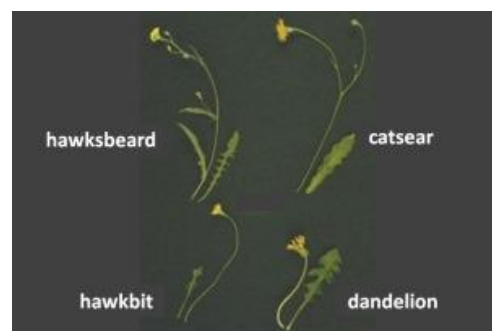
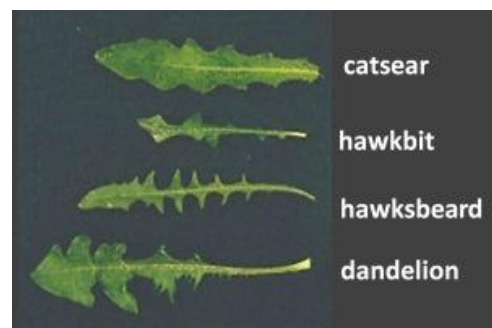


ALL PARTS OF DANDELION AND ITS LOOK ALIKES ARE EDIBLE. TRUE DANDELION LEAVES AND FLOWERS HAVE MORE BETA-CAROTENE, THE PRECURSOR OF VITAMIN A, THAN CARROTS, AND MORE IRON AND CALCIUM, THAN SPINACH. THEY ALSO PROVIDE VITAMINS B1, B2, B5, B6, B12, C, E, P AND D, PLUS BIOTIN, INOSITOL, POTASSIUM, PHOSPHORUS, MAGNESIUM AND ZINC.

DANDELION ROOT CAN BE PREPARED LIKE ANY OTHER ROOT VEGETABLE OR DRIED AND ROASTED - GRIND AND USE AS A COFFEE SUBSTITUTE



RIGHT: DANDELION LOOKALIKES - CATS EAR IS THE MOST COMMON IMPOSTOR BUT HAS ROUNDED LEAF MARGINS WHICH RESEMBLE CATS EARS, TRUE DANDELION LEAVES ARE SERRATED - AN ODE TO ITS NAME "DENT DE LION", MEANING LION'S TOOTH IN FRENCH. TRUE DANDELION ALSO HAS AN UNBRANCHED SINGLE HOLLOW STALK THAT CARRIES ITS FLOWER



DEAD NETTLE

Latin: *Lamium amplexicaule*

Other Names: henbit dead nettle, purple archange

HENSBIT DEAD NETTLE IS A BEAUTIFUL PLANT AS NUTRITIOUS AS STINGING NETTLE, BUT WITHOUT ITS FORMIDABLE DEFENSE SYSTEM. ITS COMMON NAME IS DERIVED FROM THE TWO WORDS 'HEN BIT', REFERRING TO THE ABSOLUTE LOVE CHICKENS HAVE FOR THIS FOOD.

HENBIT IS AN ANNUAL THAT GROWS BETWEEN 10 AND 30 CENTIMETRES TALL. THE PLANT SOMEWHAT RESEMBLES STINGING NETTLE, HOWEVER THEY DO NOT STING - HENCE ITS COMMON NAME "DEAD NETTLE". THIS PLANT GROWS FROM A SHALLOW TAPROOT THAT BECOMES FINELY BRANCHED. THE LOW GROWING PLANT HAS A NUMBER OF WEAK STEMS ARISING FROM THE BASE THAT MAY BE ERECT OR ALMOST LAY ON THE GROUND. THE STEMS ARE SQUARE AND GREEN BUT BECOME PURPLE WITH AGE MAKING IT EASY TO IDENTIFY. TINY, DARK PINK FLOWERS OCCUR IN RINGS IN THE UPPER LEAF AXILS. OPEN FLOWERS ARE SOMEWHAT ORCHID-LIKE, WITH A WHITE FACE AND DARK RED SPOTS.



HENBIT LEAVES ARE IN WHORLS AROUND THE STEM. THEY ARE ALSO SESSILE — WITHOUT ANY LITTLE STEMS OF THEIR OWN AND SPACED ROUGHLY 5 CM APART GOING UP THE STEM. THE LEAF MARGINS ARE DEEPLY SCALLOPED.

HENBIT CAN BE CONSUMED FRESH OR COOKED AS AN EDIBLE HERB. THE STEM, FLOWERS, AND LEAVES ARE EDIBLE, AND ALTHOUGH THIS IS IN THE MINT FAMILY, IT TASTES RATHER LIKE RAW KALE. HENBIT IS VERY NUTRITIOUS, HIGH IN IRON, VITAMINS AND FIBRE. DUE TO ITS LACK OF PRICKING NEEDLES I PREFER EATING HENBIT RAW AS APPOSED TO COOKING IT LIKE STINGING NETTLE (THIS REMOVES THE FORMIC ACID PRESENT)

LEFT: HENBIT LEAVES ARE A MUTED GREEN IN COLOR WITH LITTLE TO NO HAIRS PRESENT

BELOW: PURPLE DEAD NETTLE IS ALSO EDIBLE HOWEVER IS NOT AS COMMON IN SOUTH AFRICA AS HENBIT



Dock

Latin: *Rumex crispus*

Other Names: curly dock, tongblaar, yellow dock

DOCKS HAVE ALWAYS BEEN A POPULAR WILD EDIBLE, ESPECIALLY DURING GREAT FAMINES DUE TO THEIR TART, LEMONY FLAVOR, THEIR WIDESPREAD ABUNDANCE, & THE FACT THAT THEY WERE FREE FOR THE TAKING. TODAY, MOST PEOPLE HAVE FORGOTTEN ABOUT THIS COMMON & NUTRITIOUS EDIBLE WEED.

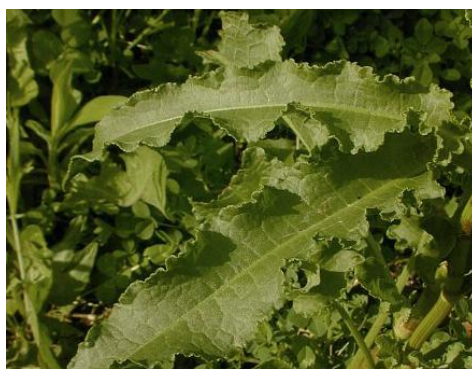
DOCKS ARE PERENNIAL PLANTS GROWING FROM LONG TAPROOTS - MAKING THEM INCREDIBLY DROUGHT TOLERANT, HOWEVER THESE HARDY PIONEERS ARE TASTIEST WHEN THEY GROW WITH PLENTY OF MOISTURE. DOCKS GROW AS BASAL ROSETTES OF FOLIAGE. THE LEAVES ARE BROAD & SIMPLE EXCEPT FOR WAVY, RUFFLED EDGES. A GOOD WAY TO FIND DOCK IS TO LOOK FOR THE OLD, DEAD FLOWER STALKS, WHICH PERSIST ALL WINTER. THEY HAVE AN ATTRACTIVE, RUSTY BROWN COLOR & ARE COVERED IN THOUSANDS OF LITTLE SEEDS.



ALL PARTS OF THE CURLY DOCK ARE EDIBLE, THE YOUNG FLOWERS, LEAVES & STALKS ARE TENDER & DELICIOUS - THEY ARE HIGH IN IRON & SIGNIFICANT LEVELS OF CALCIUM, POTASSIUM, & BETA CAROTENE. THEY HAVE A SLIGHT LEMONY TWANG TO THEM, WHICH INDICATES THE PRESENCE OF OXALIC ACID

THE SEEDS THOUGH TEDIOUS TO SIFT THROUGH CAN BE ROASTED & EATEN OR GROUND INTO FLOUR FOR CULINARY USE. THE ROOTS ARE GREAT ADDED INTO STEWS & BOILED - REMOVE ONCE COOKED AS THEY ARE TOO FIBROUS TO CONSUME - BUT THE NUTRITIONAL CONTENT WILL REMAIN

BELOW: BEST LEAVES ARE FOUND AT THE ROSETTE. YOU WILL SEE LEAVES EMERGING THAT ARE ROLLED UP TIGHT. IF YOU UNROLL ONE, YOU'LL NOTICE IT'S A STICKY-SLIMY. YOU WANT THESE LEAVES, AND THE ONES THAT HAVE JUST UNROLLED.



DUNE SPINACH

Latin: *Tetragonia decumbens*

Other Names: sea spinach, kinkelbos

THIS INCONSPICUOUS BEACH PLANT HAS BEEN TRAMPLED ON OR WALKED PAST THOUSANDS OF TIMES WITH LITTLE TO NO INTEREST PAID TO IT, HOWEVER DUNE SPINACH IS ONE OF THE MOST ABUNDANT WILD EDIBLE FOOD SOURCES GROWING ON EVERY COASTAL PROVINCE IN SOUTH AFRICA

THE TRAILING BRANCHES CAN BE OVER 1 M LONG, ROOTING AT INTERVALS. DUNE SPINACH HAS BROAD GREEN SUCCULENT LEAVES THAT CURVE DOWN & INWARDS, THEY ARE ALSO COVERED WITH MICROSCOPIC WATER-STORAGE CELLS THAT GLISTEN IN THE SUNLIGHT. THEY PRODUCE DAINTY FOUR- PETALED YELLOW FLOWERS WITH MANY STAMENS, FRUITS ARE WINGED & ADAPTED TO BE BLOWN ABOUT BY THE SEA WIND, THEREBY AIDING DISPERSAL OF THIS IMPORTANT PIONEERING PLANT.

DUNE SPINACH IS ONE OF FEW TRUE PIONEER PLANTS THAT INHABIT BEACHES - THEY HELP TO STABILIZE THE SOIL ON DUNES & FORM ORGANIC MATTER WHICH, IN TURN, PROVIDE A HABITAT FOR OTHER PLANTS TO ESTABLISH THEMSELVES - WHEN HARVESTING WE ASK TO PLEASE ONLY PICK LEAVES & DO NOT UPROOT THE PLANT.

BELOW: TAKE NOTE OF THE PURPLE RED STEM AND INWARD CURLING LEAVES FOR EASY IDENTIFICATION



LEAFY STEMS AND TOPS ARE HARVESTED, BUT THE NEW GROWTH DURING RAINY SEASONS ARE BEST. THE SUCCULENT PLANT MATERIAL CAN BE CLEANED AND EATEN RAW, HOWEVER WASHING THOROUGHLY AND BOILING WILL REMOVE THE SALTY TASTE AND ANY RESIDUAL SAND LEFT ON THE OVER.

DUNE SPINACH IS A GREAT EDIBLE, IT PAIRS WELL WITH THE CAPE FAVORITE - WOOD SORREL - DUE TO ITS SOUR TASTE.

BELOW RIGHT: DUNE SPINACH IS A GREAT SURVIVOR, OFTEN SEE GROWING THROUGH OTHER PLANT LIFE



FERNS

Latin: Various.

Other Names: fiddle heads, fern fronds

OF ALL THE WILD EDIBLE PLANTS, FIDDLEHEAD FERNS ARE SOME OF THE MOST UNIQUE AND FLAVORFUL.

FIDDLEHEADS ARE THE UNFURLED NEW LEAVES OF A FERN. THEY VARY IN SIZE, SHAPE AND EDIBILITY FROM SPECIES TO SPECIES.

FIDDLEHEADS ARE PRODUCED BY A NUMBER OF FERN SPECIES, EMERGING IN THE FIRST DAYS OF WARM SPRING WEATHER. MOST FERNS MAKE FRONDS THAT LOOK LIKE BUT SOME ARE MORE PALATABLE THAN OTHERS. IT IS BEST TO COLLECT FIDDLEHEADS WHEN THEY ARE STILL TIGHTLY CURLED AS THEY QUICKLY BECOME LESS PALATABLE AS THEY UNFURL - ALSO, REMOVE ANY OF THE BROWN, PAPERY CHAFF FROM THE OUTSIDE OF THE PLANT.

BELOW: BRACKEN FERN ARE VERY COMMON IN SOUTH AFRICA AND MAKE A DELICIOUS MEAL WHEN PREPARED CORRECTLY - SWORD FERN, OSTRICH FERN, LADY FERN, AND ROYAL FERN ARE SOME EDIBLE FERNS PRESENT IN SOUTH AFRICA.



FIDDLEHEADS CONTAIN VARIOUS VITAMINS AND MINERALS, AS WELL AS OMEGA-3 AND OMEGA-6 FATTY ACIDS. THEY ARE A SOURCE OF ANTIOXIDANTS AND DIETARY FIBER. THEY ARE ALSO RICH IN POTASSIUM, AND CONTAIN AROUND 12G OF PROTEIN PER 100G

WHILE FIDDLEHEADS ARE EDIBLE, IT IS EXTREMELY IMPORTANT TO COOK ALL FIDDLEHEADS THOROUGHLY, AS UNCOOKED PLANTS CONTAIN THIAMINASE WHICH IS A VITAMIN B DEPLETING ENZYME. HEAT DESTROYS THIS ENZYME AND MAKES THEM SAFE TO EAT. UNDER NO ACCOUNT SHOULD FIDDLEHEADS BE CONSUMED RAW. A RECOMMEND BOILING OR STEAMING TIME OF 20 MINS IS ADVISED.



GHAAP

Latin: Hoodia spp.

Other Names: hoodia, khobab, kalahari cactus

HOODIA SPECIES ARE A CONVENIENT EMERGENCY FOOD AND MOISTURE SOURCE FOUND IN HARSH ARID AREAS SPREAD ACROSS SOUTH AFRICA - HOWEVER THEY ARE MOST COMMON IN THE KALAHARI REGION AND THE KAROO.

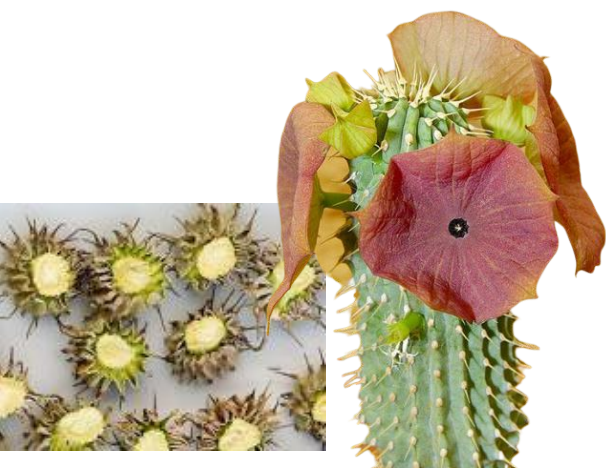
HOODIA PLANTS ARE LEAFLESS SUCCULENTS WITH THICK FLESHY FINGER LIKE STEMS, THEY HAVE A SPINY APPEARANCE SIMILAR TO CACTI. THE STEMS BRANCH AND RISE FROM AN AREA NEAR THE BASE, THEY HAVE ROWS OF THORNS AND LARGE RADAR-ANTENNA LIKE FLOWERS. THE FLOWERS SMELL STRONGLY OF DECAYING MEAT WHICH IS HOW THEY ATTRACT POLLINATING FLIES

SEVERAL SPECIES OF HOODIA ARE EATEN FRESH AS A RAW FOOD. THE SPINES ARE SCRAPED OFF OF THE SUCCULENT STEMS WITH A STONE OR KNIFE - THE STEM IS THEN EATEN RAW LIKE A CUCUMBER. STEMS ARE MORE PLESENT AFTER RAINS WHEN THE PLANT IS SWOLLEN WITH WATER



FRESH STEMS CAN ALSO BE PROCESSED - SLICED INTO CHUNKS AND DRIED - A GREAT RESOURCE FOR LONG TRIPS IN ARID CLIMATES AS HOODIA IS ALSO A GREAT WAY TO STAVE OFF HUNGER AND THIRST - THE PLANT HAS APPETITE SUPPRESSANT QUALITIES.

HOODIA IS LISTED BY THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES) AND IS PROTECTED BY NATIONAL CONSERVATION LAWS IN SOUTH AFRICA - THEREFORE THE PLANT SHOULD ONLY BE COLLECTED AND EATEN IN EXTREME CASES WHERE NO OTHER FOOD OR WATER SOURCES ARE PRESENT.



FAR LEFT: HOODIA SLICED INTO CHUNCKS FOR CONSUMPTION

RIGHT: HOODIA FLOWERS HAVE A CHARACTERISTIC RADAR SHAPE AND CAN GROW UP TO 10CM IN DIAMETER



HOTTENTOT FIG

Latin: *Carpobrotus edulis*
Other sour fig, suurvy, cape fig

THE HUMBLE SOUR FIG CAN BE FOUND ALL OVER SOUTH AFRICA. ONE OF THE EASIEST WILD EDIBLES TO SPOT, INPART DUE TO ITS ABUNDANCE AND NO KNOWN LOOK-ALIKES.

THIS WELL KNOWN CREEPING SUCCULENT HAS HORIZONTAL STEMS THAT CURVE UPWARDS AT THE GROWING POINT. THEY ARE FLAT-GROWING, TRAILING PERENNIAL, ROOTING AT NODES AND FORMING DENSE MATS. THE FLOWERS ARE SOLITARY, THEY ARE BORNE YELLOW BUT TURN ORANGE AND THEN PURPLE WIHT MATURITY. THE CENTRE OF THE FLOWER HAS MANY STAMENS SURROUNDING A BEAUTIFUL STARFISH-LIKE STIGMA. FRUIT IS FLESHY, INDEHISCENT AND SHAPED LIKE A SPINNING TOP, ON A WINGED STALK. THE FRUIT BECOMES YELLOW AND FRAGRANT WHEN RIPE. THE OUTER WALL OF THE FRUIT OVER TIME BECOMES WRINKLED AND LEATHERY. THE SEEDS ARE EMBEDDED IN THE STICKY, SWEET, JELLY-LIKE MUCILAGE



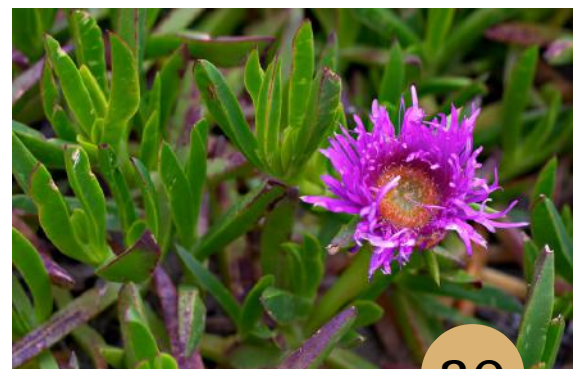
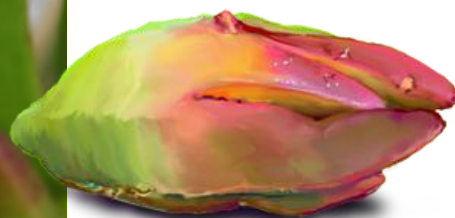
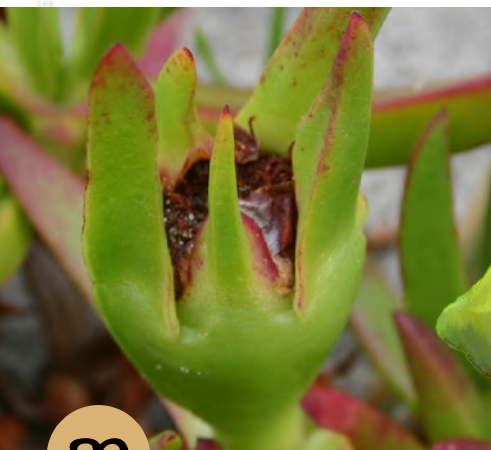
THE SUCCULENT LEAVES AND FRUIT ARE BOTH EDIBLE, HOWEVER THE LATTER IS MUCH MORE PALATABLE. TO EAT THE DRIED FRUIT, THE BASE OF THE SOUR FIG IS BITTEN OR BROKEN OFF AND THE PULP SUCKED OUT. THE LEAVES MUST BE PROCESSED IN ORDER TO IMPROVE THE TASTE. LEAVES & STEMS ARE PRICKED WITH A FORK AND BOILED - THE WATER CHANGED AT LEAST TWICE TO REMOVE THE TANNINS AND BITTER TASTE.

HOTTENTOTS FIGS ARE RICH IN VITAMINS A, B AND C. THEY ARE PREDOMINANTLY COMPOSED OF WATER MAKING THEM A GREAT SOURCE OF HYDRATION IN WATER SCARED ENVIRONMENTS.



LEFT: DRIED FRUITS ARE PREFERRED - GREEN RIPENING FRUITS CAN BE EATEN BY PEELING OFF THE SKIN AND ACCESSING THE FLESH WITHIN

RIGHT: FLOWERS ARE SOLITARY, STARTING OFF YELLOW BEFORE THEY CHANGE TO BRILLIANT PURPLE WITH AGE



LAMBS QUARTERS

Latin: *Chenopodium album*

Other Names: goosefoot, white pig weed

LAMBS QUARTERS ARE ONE OF THE MORE PROLIFIC WEEDS, FOUND THROUGHOUT SOUTH AFRICA. THERE EXIST SEVERAL VARIETIES & ALL ARE EDIBLE WITH NO LOOK-ALIKES.

WHEN THIS PIONEER FIRST SPROUTS, ITS LEAVES ARE OPPOSITE, OVAL-SHAPED, & COVERED WITH A WHITISH MEALY COATING SIMILAR TO DUST OR POWDER. THE LEAF MARGINS MAY BE COARSELY TOOTHED, & SOMEWHAT RESEMBLE A GOOSE'S WEBBED FOOT. AS THE PLANT MATURES, ITS LEAVES BECOME ALTERNATE, & OFTEN MORE TRIANGULAR. THE UNDERSIDE OF THE LEAF & THE NEW GROWTH AT THE TOP OF THE PLANT ALWAYS RETAIN THE WHITISH DUSTING. PETIOLES & STALKS CAN ALSO BE TINGED PURPLE IF CONDITIONS ALLOW. THE PLANTS CAN GROW UP TO 2 METERS TALL -HOWEVER MOST ARE UNDER A METER. THE FLOWER IS INCONSPICUOUS, GREEN IN COLOR, AND GROW IN CLUSTERS AT THE TOP OF THE STALK. LEAVES AT THE TOP OF THE STALK ARE SMALLER, LANCE-SHAPED, AND HAVE LITTLE-TO-NO SERRATION.



THE LEAVES AND YOUNG SHOOTS MAY BE EATEN AS A LEAF VEGETABLE & ITS BLACK SEEDS CAN BE PROCESSED INTO FLOUR

LAMBS QUARTERS LEAVES ARE HIGH IN CALCIUM AND POTASSIUM - 1944 MG & 4104 MG RESPECTIVELY PER 100G THEY ALSO HAVE A FAIR AMOUNT OF PROTEIN HOWEVER THE SEEDS CONTAIN THE HIGHEST PROTEIN CONTENT AT 36% PER 100G



RIGHT: LEAF SHAPE RESEMBLES A GOOSE'S WEBBED FOOT, A LIGHT WHITE DUSTING CAN BE SEEN ON THE UNDERSIDE OF THE LEAF

LEFT: CLOSE UP IMAGE OF THE WHITISH DUSTING



MALLOW

Latin: Malva spp.

Other Names: little mallow, cheese weed, egyptian mallow

THE COMMON MALLOW IS PART OF A VERY LARGE FAMILY OF MALVACEAE PLANTS, EATEN SINCE ANTIQUITY.

MALLOW IS A LOW GROWING WEED, WITH A DEEP FLESHY TAP ROOT. ITS LEAVES HAVE FIVE TO SEVEN ROUNDED, LOBES WITH SHORT HAIRS PRESENT ON THE UPPER AND LOWER LEAF SURFACES. THE FLOWERS ARE BORNE EITHER SINGLY OR IN CLUSTERS - THEY ARE CUP SHAPED, FIVE-PETALED AND RANGE IN COLOR FROM WHITE TO PINK TO SHADES OF LAVENDER AND BLUE. SOMETIMES DELICATE STREAKS OF COLOR CAN BE SEEN RADIATING OUTWARDS FROM THE CENTER OF THE FLOWER. THE FRUITS ARE SHAPED LIKE SMALL GREEN-LOBED WHEELS WITH A CIRCULAR INDENTATION AROUND THE CENTER QUITE REMENICENT OF A CHEESE WHEEL - HENCE ITS COMMON NAME



ALL PARTS OF THIS PLANT ARE EDIBLE. THE LEAVES & FLOWERS CAN BE EATEN RAW, & THE FRUIT CAN BE A SUBSTITUTE FOR CAPERS. WHEN COOKED, THE LEAVES CREATE A MUCUS THAT CAN BE USED AS A THICKENER TO SOUPS & STEWS. MALLOW ROOTS ALSO RELEASE A THICK MUCUS WHEN BOILED IN WATER. THE LIQUID THAT IS CREATED CAN BE BEATEN TO MAKE A MERINGUE-LIKE SUBSTITUTE FOR EGG WHITES. COMMON MALLOW LEAVES ARE RICH IN VITAMINS A & C AS WELL AS CALCIUM, MAGNESIUM, POTASSIUM, IRON AND SELENIUM.



LEFT: GROUND MALLOW LEAVES ON THE LEFT WITH TREE MALLOW LEAVES ON THE RIGHT



BELOW RIGHT: MALLOW FRUIT IS CIRCULAR WITH WEDGE GROOVES CUT INTO IT



NASTURTIUM

Latin: *Tropaeolum majus*

Other Names: indian Cress,
kappertjie, capucine

A NATIVE TO THE ANDES ORIGINALLY, NASTURTIUM WAS INTRODUCED AROUND THE WORLD AS A GARDEN ORNAMENTAL DUE TO ITS BEAUTIFUL FLOWERS AND RESILIENCE - IT NOW GROWS RAMPANT AROUND MANY PARTS OF SOUTH AFRICA - AND THAT BRIGHT BEAUTIFUL FLOWER MAKES IT VERY EASY TO IDENTIFY.

NASTURTIUMS ARE FLESHY PLANT THAT HAS SPRAWLING / CLIMBING TENDENCIES. THE LEAVES ARE ALMOST ENTIRE LOBED IN APPEARANCE - ALMOST ROUND, HAIRLESS AND ALTERNATE ON THE STEM. THEY ARE ATTACHED TO THE STEM IN THE MIDDLE OF THE LEAF & HAVE QUITE NOTICEABLE PALE VEINS ON THE TOP PART OF THE LEAF. THE FLOWERS ARE STRIKING IN THEIR APPEARANCE AND ARE QUITE OFTEN YELLOW, ORANGE AND RED IN COLOR, RISING ON LONG STALKS FROM THE AXILS OF THE LEAVES. THEY ARE TRUMPET SHAPED & HAVE 5 PETALS. THE SEEDS ARE RELATIVELY LARGE, NUTLIKE IN APPEARANCE AND HAVE 3 SINGLE SEGMENTS.



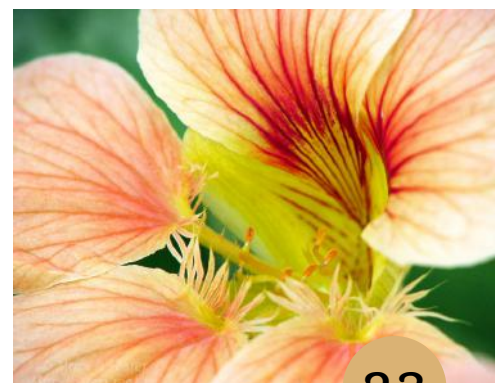
NASTURTIUM FLOWERS AND BUDS ARE EDIBLE & PACKED WITH A ZIPPY FLAVOR; THE YOUNG LEAVES ARE TENDER AND EDIBLE AS WELL. NASTURTIUMS ARE HIGH IN VITAMINS A, C - 10 TIMES AS MUCH AS LETTUCE, AND D.

THE IMMATURE SEED PODS CAN ALSO BE PICKLED AND USED AS A CAPER SUBSTITUTE - BEST FRIED. THE MATURE SEEDS HOWEVER CAN BE ROASTED FOR A PEPPERY SNACK OR GROUND AND USED LIKE BLACK PEPPER DUE TO THEIR PUNGENT TASTE.



RIGHT: NASTURTIUM SEED PODS REMAIN AFTER THE FLOWER HAS DROPPED OFF - THEY ARE LARGE & COMPRISED OF 3 SEGMENTS

BELOW: NASTURTIUM LEAVES HAVE VISIBLE WHITE VEINS RADIATING FROM THE CENTER OF THE LEAF



NUM NUM

Latin: *Carissa macrocarpa*

Other Names: natal plum,
amatungulu

THERE ARE FEW FORAGED FRUITS IN SOUTH AFRICA THAT CAN MATCH THE NUM NUM IN SHEER TASTINESS - YET, IT IS A MEMBER OF ONE OF THE MOST DEADLY PLANT FAMILIES IN THE WORLD - THE DOGBANE (APOCYNUM) GENUS

NATAL PLUMS CAN TOLERANT A VARIETY OF HARSH ENVIRONMENTS WHICH MAKE IT A POPULAR LANDSCAPING PLANT, THEY CAN GROW IN HOT ARID CLIMATES, THEY TOLERATE SALTY WIND AND EVEN ROAD WAYS BOMBARDED BY FUMES - THANKS TO THIS WE CAN FIND IT ALL OVER SOUTH AFRICA, HOWEVER WE DON'T RECOMMEND CONSUMING ROAD SIDE FRUIT. THEY HAVE SHINY, DEEP GREEN LEAVES AND THEIR BRANCHES ARE COVERED IN FORKED THORNS. NUM NUMS PRODUCE LARGE QUANTITIES WHITE STAR-SHAPED FLOWERS QUITE SIMILAR TO JASMINE BUT WITH AN ORANGE BLOSSOM SCENT, THEIR SCENT INTENSIFIES AT NIGHT AND THEY BLOOM FOR MONTHS AT A TIME. THEY PRODUCE EDIBLE RED TO PURPLE FRUIT. THE FRUIT PRODUCES A MILKY WHITE LATEX WHEN BROKEN WHICH IS A DEFINING CHARACTERISTIC WHEN IDENTIFYING NUM NUM - THE WELL KNOWN FACT THAT MOST PLANTS CONTAINING MILKY LATEX SAP ARE INEDIBLE DOES NOT APPLY TO THIS PLANT AS ITS FRUIT ARE INDEED EDIBLE - HOWEVER, ONLY THE FRUIT CAN BE EATEN AS THE REST OF THE PLANT IS HIGHLY TOXIC.

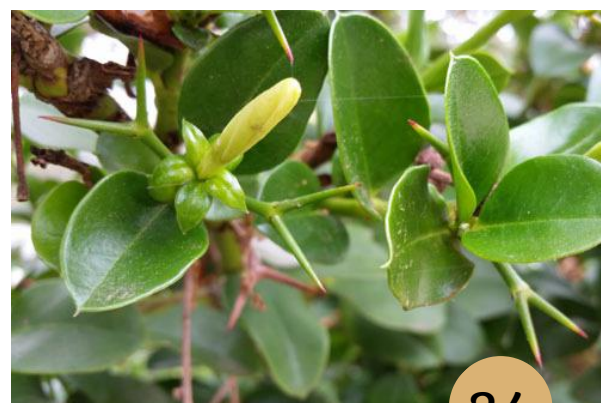
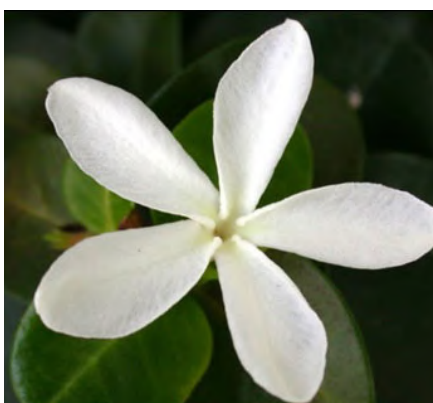


NUM NUM FRUIT IS RICH IN VITAMIN C, CALCIUM, MAGNESIUM AND PHOSPHORUS. AN ANALYSES SHOWS THE FRUIT IS 78%; PROTEIN, & ASCORBIC ACID IS 1 MG PER 10 MG IN WEIGH MEANING IT IS 10% VITAMIN C.

NUM NUMS CAN BE EATEN RAW OR COOKED AND MADE INTO A JAM, WE RECOMMEND USING AN ALUMINIUM POT WHEN DOING THIS AS THE LATEX CAN STICK VERY EASILY TO MOST POTS.

BELOW RIGHT: NUM NUM FRUIT WITH CHARACTERISTIC WHITE LATEX EXUDING FROM THE FLESH

BELOW: NUM NUM FLOWERS ARE STAR SHAPED, GENERALLY WHITE BUT SOMETIMES YELLOW - THE BRANCHES HAVE FORKED THORNS TOO



PLANTAIN

Latin: *Plantago* spp.

Other Names: ribwort, buckhorn, rats tail, white mans footprint

PLANTAIN WAS IN THE PAST LOOSELY REFERRED TO AS WHITE MANS FOOT PRINT, DUE TO THE FACT THAT WHERE EVER COLONIZATION HAPPENED THIS PLANT WAS FOUND - PLANTAIN SEEDS BROUGHT FROM EUROPE WOULD FALL FROM STORAGE SACKS AS THEY WERE CARRIED BY CART, THEY QUICKLY SPREAD & ARE NOW SOME OF THE MOST WIDE SPREAD EDIBLE WEEDS IN THE WORLD.

THERE ARE TWO COMMON PLANTAIN SPECIES IN SOUTH AFRICA - THE LONG LEAF PLANTAIN AND BROAD LEAF PLANTAIN. THIS PIONEER IS EASY TO IDENTIFY - LEAVES ARE BORNE FROM A ROSETTE, SPATULATE TO OBLANCEOLATE OR OBOVATE, LIGHTLY HAIRY ABOVE AND BELOW, WITH PROTRUDING LATERAL VEINS / RIBS THAT START AT THE BASE OF THE LEAF DOWN THE BLADE, PARALLEL TO THE MIDRIB. STEMS ARE SOLID, MULTIPLE FROM THE BASE, AND ARE NOT BRANCHED.



PLANTAIN'S YOUNG LEAVES CAN BE EATEN RAW, BUT LARGER LEAVES BECOME TOUGH AND FIBROUS SO THEY ARE BEST COOKED. THE ROOTS AND SEEDS CAN ALSO BE EATEN, USUALLY COOKED, BUT RAW CONSUMPTION OF THESE PARTS, ALTHOUGH BITTER, IS PERFECTLY FINE.

PLANTAIN IS NOT ESPECIALLY RICH IN PROTEIN OR CALORIE COUNT HOWEVER IT DOES HAVE HIGH AMOUNTS OF CALCIUM AND VITAMINS A, C, AND K



RIGHT: *PLANTAGO LANCEOLATA* ABOVE WITH *PLANTAGO MAJOR* BELOW

BELOW: FLOWERS OF THE TWO SPECIES PRODUCE BLACK BITTER SEEDS, ALMOST 2000 PER PLANT



PRICKLY PEAR

Latin: *Opuntia* spp.

Other Names: cactus pear,
indian fig

THIS ABUNDANT CACTUS SPECIES CAN BE FOUND ALL OVER SOUTHERN AFRICA - IT IS ONE OF THE GREATEST SURVIVAL FOODS WE HAVE AVAILABLE, DUE TO ITS EDIBILITY AND WIDE VARIETY OF USES.

THESE PERENNIAL PLANTS ARE TYPICALLY MANY-BRANCHED WITH DISTINCTIVE FLESHY, FLATTENED, OFTEN ROUNDED STEM-SEGMENTS KNOWN AS CLADODES / PHYLLOCLADES OR MORE SIMPLY AS PADS. ONCE FLOWERED THE CACTUS PRODUCES FRUIT WHICH GROWS ON THE EDGES OF THE FLAT PADS. THE FRUIT IS PEAR SHAPED & CAN RANGE IN COLOR FROM GREEN (LESS SWEET) TO RED (VERY SWEET) WITH YELLOW TO ORANGE SHADES IN BETWEEN. THE FRUITS AND PADS ARE EDIBLE HOWEVER WE ADVISE CAUTION WHEN WORKING WITH THIS PLANT AS THE PAD CONTAINS LARGE SPINES & THE FRUIT IS COVERED IN TINY HAIRLIKE SPLINTERS CALLED GLOCHIDS - EITHER OF WHICH CAN CAUSE PAIN OR IRRITATION IF TOUCHED.



THE DEFENSIVE THORNS AND HAIRS CAN EASILY BE SCRAPED OFF WITH A KNIFE OR ROCK. ONCE THIS IS DONE YOU WILL BE REWARDED WITH A VERY VERSATILE FOOD SOURCE AND SURVIVAL TOOL. THE PADS CAN BE HOLLOWED OUT TO STORE WATER - THE INTERIOR FLESH CAN THEN BE SQUEEZED FOR WATER, OR CUT INTO STRIPS, COOKED & CONSUMED - THOUGH BITTER THEY PROVIDE VITAL NOURISHMENT WHEN IN NEED.

THE FRUIT HOWEVER IS MORE PALATABLE AND HIGH IN VITAMINS AND MINERALS. TO CONSUME THE FRUIT MAKE AN INCISION Laterally FROM TIP TO BASE - PIERCING THE THICK OUTER SKIN, ONCE THROUGH, THE SKIN CAN THEN BE PEELED OFF AND THE ENTIRE FRUIT AS WELL AS SEEDS CAN BE EATEN RAW.



LEFT: PRICKLY PEAR FRUIT COMES IN MANY COLOR VARIATIONS.

BELOW RIGHT: PADS CAN BE SLICED AND COOKED TO PROVIDE A NUTRITIOUS MEAL IN DIRE SITUATIONS



PURSLANE

Latin: *Portulaca oleracea*
Other Names: kanniedood,
red root

PURSLANE IS A SUCCULENT ANNUAL TRAILING PLANT THAT GROWS RAMPANT IN CRACKS ALL OVER SOUTH AFRICAN CITIES BECAUSE IT THRIVES IN POOR SOIL.

PURSLANE IS EXCEPTIONALLY EASY TO IDENTIFY, & WHEN YOU STUMBLE UPON A HEALTHY PATCH YOU'LL KNOW IT RIGHT AWAY. PURSLANE IS A RELATIVELY FLAT GROWING PLANT WITH A DISTINCTIVE THICK, REDDISH STEM & SUCCULENT, GREEN LEAVES WHICH RESEMBLE JADE BUT IN MINIATURE FORM. PURSLANE HAS YELLOW FLOWERS THAT OCCUR SINGLY OR IN SMALL TERMINAL CLUSTERS - THEY CONSIST OF FIVE PETALS, TWO GREEN SEPALS & NUMEROUS YELLOW STAMENS. THE BLACK SEEDS THAT FOLLOW THE YELLOW FLOWERS DEVELOP IN COPIOUS AMOUNTS - UP TO 10 000 PER PLANT. A SINGLE PURSLANE PLANT CAN SPREAD IN EVERY DIRECTION UNTIL IT FORMS A THICK, DENSE MAT - GREAT LIVING MULCH FOR GARDENERS AS IT KEEPS MOISTURE CLOSE TO THE GROUND, SUPPRESSES OTHER WEEDS AND DOESN'T KILL EXISTING PLANT ROOTS



THE LEAVES, STEMS, FLOWER BUDS & SEEDS OF PURSLANE ARE ALL EDIBLE & QUITE NUTRITIOUS. IT CONTAINS MORE OMEGA-3 FATTY ACIDS & VITAMIN E THAN ANY OTHER LEAFY GREEN, AS WELL AS SEVEN TIMES MORE BETA CAROTENE THAN CARROTS.

IN TERMS OF PROTEIN & OTHER NUTRIENT CONTENT, PURSLANE IS EQUAL TO OR IN SOME CASES GREATER THAN THE MIGHTY CULTIVATED SPINACH MAKING IT A VALUABLE ALLY TO THOSE IN NEED OF SUSTENANCE.

LEFT: PURSLANE (TOP) & ITS LOOKALIKE SPURGE (BOTTOM) CAN BE TOLD APART BY SPURGE THIN FEATHERY LEAVES WHICH GROW OPPOSITE EACH OTHER. WHEN TORN SPURGE ALSO PRODUCES A WHITE MILK SAP - THE ENTIRE SPURGE WEED IS TOXIC



SEA BEANS

Latin: *Salicornia* spp.

Other Names: glasswort, seekoraal, marsh sampfire

THERE ARE OVER 20 KNOWN SPECIES OF GLASSWORT OR MORE RECENTLY TERMED SEA BEANS IN SOUTH AFRICA, THEY ARE FOUND IN COASTAL SALT MARSHES, ESTUARIES & PERIODICALLY IN WET INLAND SALT PANS.

THESE REMARKABLE PLANTS ARE CALLED HALOPHYTES - MEANING THAT THEY ARE ADAPTED TO WITHSTAND HIGH LEVELS OF SALT - WHICH MAKES THEM EASY TO FIND IF YOU'RE NEAR THE SEA. THIS ERECT SHRUB HAS A TERMINAL SPIKE OR MAIN STEM WITH MULTIPLE OFF SHOOTS OR BRANCHES - IT HAS LEAFLESS, SUCCULENT STEMS THAT CRACK OR OR BREAK AS YOU WALK OVER THEM - ALLUDING TO ITS OLD NAME GLASSWORT. THIS PIONEERS' FLOWERS ARE EXTREMELY SMALL, SUNKEN INTO THE JOINTS, WITH ONLY THE STAMENS VISIBLE.



SEA BEANS FLESHY JOINTED STEMS ARE EDIBLE RAW. THEY ARE BETTER WHEN YOUNG & BECOME TOUGH AS THEY MATURE - HOWEVER WOODY OLDER STEMS CAN STILL BE EATEN, SIMPLY PULL OFF THE FLESH & LEAVE THE WOODY CENTER BIT. AS THE STEMS AGE, OR IF THEY CONTAIN A LOT OF SALT, THEY TURN A SLIGHT RED COLOR - THESE ARE STILL EDIBLE BUT BOILING IS REQUIRED. THE SMALL BLACK SEEDS ARE NOT EDIBLE BUT THE OIL PRESSED FROM THE SEED IS.



LEFT: SEA BEANS ARE A GREAT FOOD TO GROW AS THEY CAN BE IRRIGATED WITH SALINE OR SALT WATER FROM THE SEA



SHEEP'S SORREL

Latin: Rumex acetosella

Other Names: field sorrel, red sorrel, sour weed

ONE OF THE EASIER WEEDS TO IDENTIFY - WITH NO KNOWN LOOK-ALIKES IS SHEEP'S SORREL. THIS ABUNDANT PIONEER IS ALSO REGARDED AS ONE OF THE TASTIEST WILD EDIBLES IN THE WORLD

SHEEP'S SORREL IS DIFFICULT TO CONFUSE WITH OTHER SPECIES DUE TO ITS UNIQUE ARROWHEAD-SHAPED LEAVES. THE LEAVES ALSO HAVE A PAIR OF SLENDER LOBES NEAR THE BASE OF THE BLADE, THEY GROW ALTERNATE TO EACH OTHER AS A ROSETTE. THEY ARE JOINED UNDERGROUND BY A CREEPING ROOT SYSTEM. EACH ROSETTE FORMS A RED UPRIGHT FLOWER STEM. FLOWERS ARE SMALL, CLUSTERED IN WHORLS IN A BRANCHING INFLORESCENCE. THIS PLANT IS UNISEXUAL SO ALL FLOWERS ON ONE PLANT ARE EITHER MALE OR FEMALE. FEMALE FLOWERS TEND TO BE GREEN, MALE FLOWERS YELLOW, THE WHOLE PLANT IS GENERALLY A RED-GREEN TO BROWN IS COLOUR.



SHEEP'S SORREL IS PACKED WITH MANY NUTRIENTS INCLUDING VITAMIN A, C, B, D,E, K, BETA CAROTENE, MAGNESIUM, PHOSPHORUS, AND HIGH AMOUNTS OF POTASSIUM.

100G OF RAW SORREL ALSO PROVIDES UP TO 3G OF PROTEIN, 106 PERCENT OF THE VITAMIN A NEEDED PER DAY AND 64% OF THE VITAMIN C NEEDED. SHEEP'S SORREL ROOTS & SEEDS ARE ALSO EDIBLE AND HIGHLY NUTRITIOUS.

BELOW: THE EIGHT LEAF BLADE SHAPES AND THEIR MIDRIB COLOR IN THE CHICORY FAMILY



SHEPHERD'S PURSE

Latin: *Capsella bursa-pastoris*

Other Names: case weed, geld beursie, wagter-se-sakkie

THIS DAINTY LITTLE WEED GROWS YEAR ROUND IN SOUTH AFRICA, HOWEVER IS MOST COMMON IN THE WINTER MONTHS.

SHEPHERD'S PURSE IS A TASTY WILD EDIBLE IN THE MUSTARD FAMILY BUT IT IS DISTINGUISHABLE BY ITS PURSE-SHAPED SEEDPODS. IN THIS PIONEERS' ROSETTE STAGE, IT CAN BE DISTINGUISHED BY IT LOBED BASAL LEAVES WHICH ARE USUALLY HAIRY, THE LOBES OR DIVISIONS MORE OR LESS UNIFORM ON EACH SIDE, AND ITS GENERALLY SMALL SIZE - SOMEWHAT SIMILAR TO DANDELION. THE FLOWERS ARE BORNE IN ROUNDED CLUSTERS AT THE ENDS OF STEMS - THEY ARE WHITE AND QUITE SMALL CONSISTING OF 4 WHITE PETALS, 4 GREEN SEPALS, A PISTIL & SEVERAL STAMENS. THE FLOWERS ARE REPLACED BY THIS PLANTS MOST DEFINING CHARACTERISTIC BEING ITS SEEDPODS THAT ARE SOMEWHAT COMPRESSED OR FLATTENED AND RESEMBLE A HEART SHAPED PURSE

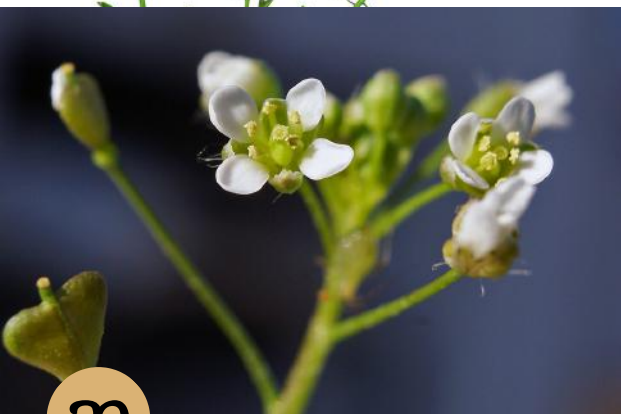


SHEPHERDS PURSE LEAVES CAN BE EATEN RAW OR COOKED. AS THE PLANT AGES IT ACQUIRES A MORE PRONOUNCED PEPPERY TASTE- DEVELOPING LEAVES ARE BEST FOR CONSUMPTION. THE FLOWERING SHOOTS AT THE TOPS OF THE PLANT CAN BE EATEN AS WELL. SHEPHERD'S PURSE SEEDS CAN BE USED IN A SALAD.

THE ROOT IS ALSO EDIBLE; DRIED AND GROUND UP IT CAN BE USED AS A GINGER SUBSTITUTE OR ADDED WHOLE TO A STEW AS A CARBOHYDRATE RICH FOOD.

RIGHT: BASAL LEAVES SOMEWHAT RESEMBLE WILD RADISH OR MUSTARD.

BELOW & LEFT: SEED PODS ARE HEART SHAPED AND SMALL - THEY FOLLOW SMALL WHITE FLOWERS WITH 4 PETALS.



SOW THISTLE

Latin: *Sonchus* spp.

Other Names: hare's thistle, swinies, common thistle



THERE'S A HUGE VARIETY OF DIFFERENT SOW THISTLES THAT HAVE MADE SOUTH AFRICA THEIR HOME. FROM HAVING FEW OR NO PRICKLES TO HAVING A LOT, FROM ONE TO SIX FEET HIGH PLANTS, SOME OF THEM ARE GREEN SOME PURPLE, ONE THING IS FOR CERTAIN - THEY ALL HAVE KEY CHARACTERISTICS AND ALL ARE EDIBLE.

THE THREE COMMON SOW THISTLES ARE *SONCHUS OLERACEUS*, *SONCHUS ASPER* AND *SONCHUS ARVENSIS*. THEY ARE RESPECTFULLY THE COMMON SOW THISTLE, THE SPINY SOW THISTLE AND THE FIELD SOW THISTLE. THE COMMON SOW HAS GREEN LEAVES WITH A BIT OF BLUE, DELTA- ARROW-SHAPED END LOBES AND DISTINCTLY POINTED LOBES WHERE IT CLASPS THE STEM. THE SPINY SOW HAS THORNY ROUND LOBES WHERE IT CLASPS THE STEM - IT ALSO HAS A LOT OF SPINES. THE FIELD SOW HAS MORE LANCE SHAPED LEAVES, LOBES CAN BE IRREGULAR, AND SOFT SMALL SPINES. IT IS THE SOFTEST OF THE THREE WITH A TACTILE FEEL CLOSER TO A WILD LETTUCE.

THE MOST DISTINGUISHING FEATURE OF SOW THISTLES ARE THE WAY THEY CLASP THE STEM AND BY THE LARGE AMOUNT OF DANDELION TYPE FLOWERS THAT ARE BORNE AT THE TOP OF THE PLANT.

THE LEAVES, FLOWERS AND ROOTS ARE ALL EDIBLE. THESE ARE BEST CONSUMED WHEN THE PLANT IS YOUNG BECAUSE THE OLDER IT GETS THE MORE BITTER IT BECOMES. ONCE IT BECOMES BITTER, IT IS BEST TO COOK THIS PLANT. LEAF SPINES NEED TO BE REMOVED BEFORE CONSUMING. THE LEAVES ARE RICH IN MINERAL SALTS AND VITAMIN C, WHILE THE ROOT IS HIGH IN CARBOHYDRATES.



LEFT: SPINY SOW THISTLE, FIELD SOW THISTLE, & COMMON SOW THISTLE IN ORDER

RIGHT: NOTICE THE WAY LEAVES CLASP THE STEM OF DIFFERENT SOW THISTLES



SPEKBOOM

Latin: *Portulacaria afra*
Other Names: porkbush,
elephant's food

A WIDELY POPULAR INDIGENOUS SUCCULENT, THE SPEKBOOM IS TRULY A VERSATILE ALLY, ESPECIALLY GOOD FOR QUENCHING THIRST AND SATIATING HUNGER.

THE SPEKBOOM IS AN ATTRACTIVE, EVERGREEN SUCCULENT SHRUB OR SMALL TREE THAT CAN REACH 5 M IN HEIGHT, ALTHOUGH USUALLY AROUND 2 M IN WILD SITUATIONS. THE SPEKBOOM CAN BE IDENTIFIED BY ITS ROUND FLESHY LEAVES SIMILAR TO JADE PLANTS - HOWEVER THE SPEKBOOM HAS SMALLER AND ROUNDER PADS AND MORE COMPACT GROWTH WITH RED MARGINS. STEMS GROW UP TO 1M IN LENGTH, THEY ARE CHARACTERISTICALLY RED TO MAROON IN COLOR WITH FEW OFF SHOOTS. SMALL STAR-SHAPED PINK FLOWERS ARE BORNE ALONG THE STEM AT LEAF NODES.



THE LEAVES OF THE SPEKBOOM CAN BE EATEN RAW AND HAVE A VERY PLEASANT SOUR OR TART FLAVOR - LEAVES ARE HIGH IN MAGNESIUM, MANGANESE, COBALT, IODINE, & SELENIUM

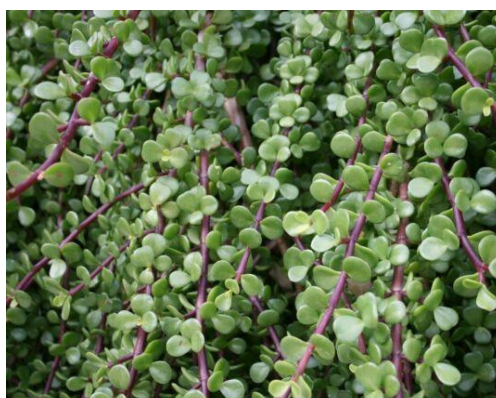
THEY CAN ALSO BE USED TO QUENCH THIRST - SUCKING A LEAF PROVIDES SOME MOISTURE WHICH CAN HELP STAVE OFF DEHYDRATION. SPEKBOOM LEAVES ARE GREAT USED IN BAKING AS WELL AS RAW IN SALADS



LEFT: SMALL STAR SHAPED FLOWERS RANGE FROM WHITE TO PINK IN COLOR

BELOW: RED STEMS ARE PACKED WITH SUCCULENT GREEN LEAVES

RIGHT: BRANCHES ARE STRAIGHT WITH LITTLE TO NO OFF SHOOTS



STINGING NETTLE

Latin: *Urtica* spp.

Other Names: swedish hemp, brandneuker, small nettle

THERE ARE TWO VERY COMMON STINGING NETTLES THAT GROW AS PIONEERS IN SOUTH AFRICA - BOTH OF WHICH MAKE THEMSELVES KNOWN BY THE FORMIDABLE STING THEY HAVE WHEN SOMEONE UNKNOWINGLY BRUSHES AGAINST THEM

BOTH *U. DIOICA* & *U. URENS* GROW RAMPANT IN CITIES AND FORESTS AROUND SOUTH AFRICA. AT CERTAIN POINTS OF THE YEAR IT MAY BE EASIER TO IDENTIFY THAN OTHERS, BUT STINGING NETTLE DISTINGUISHING ATTRIBUTES THAT MAKE IT PRETTY EASY TO IDENTIFY. NETTLE LEAVES ARE SOMEWHAT HEART-SHAPED WHICH ARE HEAVILY TOOTHED OR SERRATED AT THE MARGINS - THE LEAVES ALSO HAVE FINE BARB-LIKE HAIRS FILLED WITH FORMIC ACID, WHICH GIVES IT A CHARACTERISTIC STING. THE STEM IS ALSO COVERED IN NEEDLES OR HAIRS, AND THE LEAVES ATTACH TO THE STEM OPPOSITE ONE ANOTHER. LASTLY SMALL FLOWERS CAN BE FOUND WITH FOUR STAMENS AND YELLOW ANTHERS.



LEAVES, STEMS AND ROOTS ARE ALL EDIBLE AND HIGHLY NUTRITIOUS - 100G SERVING PROVIDES A DAILY REQUIREMENT OF 15% PROTEIN, 43% CALCIUM AS WELL AS VITAMINS A, B₂, B₃, B₆, B₉ & 55% OF THE VITAMIN K NEEDED PER DAY

BEFORE CONSUMING BE SURE TO COOK THIS PLANT THOROUGHLY TO REMOVE THE STING FROM THE LEAVES & STEM



BELOW: STINGING NETTLE LEAVES HARBOR FINE HAIR LIKE NEEDLES THAT INJECT FORMIC ACID INTO SKIN WHEN TOUCHED

RIGHT: *U. URENS* ABOVE & *U. DIOICA* BELOW



TARO

Latin: *Colocasia esculenta*

Other Names: amadumbe, elephants ear, taro potato



TARO IS A FAMOUS CROP FAR SUPERIOR TO THE POTATO. IT HAS NATURALIZED & BECOME A PIONEER IN SOUTH AFRICA. THESE WONDERFUL PLANTS GROW IN DAMP FORESTS OR NEAR WATER - THEY ARE VERY EASY TO IDENTIFY & ITS ONLY LOOK-A-LIKE DOESN'T GROW AS RAMPANT IN SOUTH AFRICA

TARO IS A COLOSSAL HERBACEOUS PLANT THAT CAN GROW UP TO 2M TALL. TAROS VERY LARGE LEAVES UP - 70 CM LONG - ARE HEART-SHAPED AND BORNE ON THICK, SPONGY STEMS. THESE LEAVES ARE ONE OF THE DEFINING CHARACTERISTICS OF THIS PLANT. THE LEAVES ARE ROUNDED AT THE TOP OF THE HEART SHAPE & MOST IMPORTANTLY HAVE VEINS THAT MEET TOGETHER ABOUT AN INCH FROM THE TOP. THE LEAF STALKS ARE JOINED TO THE UNDERSIDES OF LEAF BLADES & ARE USUALLY PURPLISH IN NATURALISED PLANTS. ITS ELONGATED FLOWER CLUSTERS HAVE GREEN FEMALE FLOWERS AT THE BASE AND YELLOWISH MALE FLOWERS TOWARDS THE TIP.

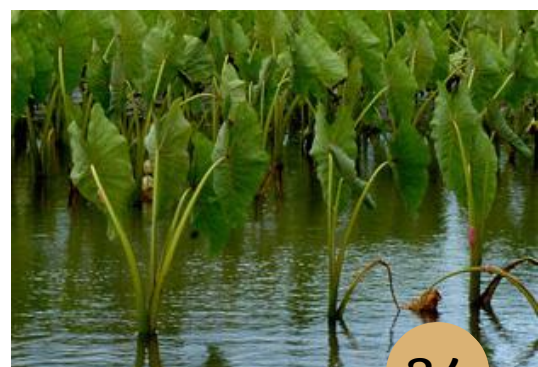
THE CORMS, LEAVES AND STEMS CAN BE EATEN IF COOKED, HOWEVER PLEASE NOTE THAT ALL PARTS OF THE PLANTS ARE MILDLY TOXIC IF EATEN UNCOOKED.

TARO ROOTS ARE FILLED WITH STARCH , AND EACH 100G SERVING CAN PROVIDE 5G OF PROTEIN & 22% OF THE VITAMIN B6 WE NEED PER DAY. IT ALSO CANTAINS HIGH AMOUNTS OF FIBER, POTASSIUM, MAGNESIUM AND VITAMINS C AND E



BELOW RIGHT: APE & TARO RESPECTIVELY NOTICE THE LEAF VEINS START AT THE TOP EDGE OF THE LEAF IN APE HOWEVER THE VEINS OF TARO MEET AND BEGIN AROUND 5CM DOWN FROM THE TOP EDGE

RIGHT: SOME VARIETIES OF TARO HAVE RED/MAROON STEMS



TSAMMA

Latin: *Citrullus lanatus*

Other Names: wild watermelon, bitterboela, citron melon

TSAMMA HAS BEEN A TRADITIONAL WILD FOOD FOR MANY YEAR IN SOUTH AFRICA - OFTEN HARVESTED FOR ITS HIGH WATER CONTENT & SWEET TASTE

TSAMMA IS A CREEPING PLANT WITH HAIRY STEM, FORKED TENDRILS & THREE LOBED LEAVES. BOTH MALE & FEMALE FLOWERS ARE BORNE ON THE STEM, THEY ARE BRIGHT YELLOW IN COLOR. CONSIDERABLY LARGE FRUITS SIMILAR TO WATERMELON BUT ROUNDER ARE THEN FORMED. THE FRUIT IS SMOOTH, PALE GREEN WITH IRREGULAR MOTTLED DARK GREEN BANDS. THE FLESH IS PALE YELLOW TO GREEN IN COLOR WITH NUMEROUS BROWN/BLACK SEEDS EMBEDDED IN THE PULP. TO EXTRACT WATER A SMALL SQUARE IS CUT FROM ONE END - USING A STICK THE INTERIOR FLESH IS POUNDED TO A PULP LIKE CONSISTENCY THIS CAN THEN BE DRUNK STRAIGHT FROM THE MELON. NOTE THAT BITTER FRUIT IS SOMETIMES FOUND AMONG SWEET FRUIT - THESE WHILE NOT POISONOUS, DO ACT AS PURGATIVES.



TSAMMA MELON IS A GREAT SOURCE OF WATER IN MANY DRY AREAS AROUND SOUTH AFRICA. THEY ARE BEST EATEN AS FRESH FRUIT HOWEVER THEY CAN ALSO BE BOILED OR STEAMED AS A VEGETABLE. THE YOUNG LEAVES AND TENDER GROWING SHOOTS CAN BE HARVESTED, AND ONCE THE LARGER HAIRS HAVE BEEN REMOVED, THEY CAN BE SLICED AND STEAM-FRIED AS A VEGETABLE RELISH OR SPINACH. THE ROASTED SEEDS ARE PROTEIN-RICH AND MAY BE EATEN AS NUTS OR GROUND - OFTEN ADDED INTO MAIZE MEAL OR BREAK MIXTURES.



LEFT: TSAMMA LEAVES HAVE THREE LOBES OR EXTENSIONS

RIGHT: FRUIT IS ROUND AND GREY GREEN IN COLOR, WITH BANDS OF DARKER COLORS RUNNING THROUGHOUT THE MELON



VELDKOOL

Latin: *Trachyandra ciliata*

Other Names: hotnotskool, wild cabbage,

VELDKOOL IS A COMMON SEASIDE PIONEER IN THE WESTERN REGION OF SOUTHERN AFRICA - THIS PLANT IS EASY TO IDENTIFY AND HAS A PLEASANT TASTE

VELDKOOL CAN BE IDENTIFIED FAIRLY QUICKLY BY ITS CHARACTERISTIC ASPARAGUS TYPE RACEMES WHICH HOUSES THE WHITE TO PINK COLORED FLOWERS - THESE FLOWERS ONLY LAST FOR ONE DAY ONE BLOOMED. THE FLOWERS ARE COMPRISED OF WHITE TEPALS WITH A PINK MIDRIB AND PAIRED YELLOW SPOTS NEAR THE BASE, USUALLY CURVED BACKWARDS. THERE ARE 6 STAMENS WITH MINUTELY HAIRY FILAMENTS.

VELDKOOLS FLESHY, STRAP-SHAPED LEAVES ARE SUCCULENT & CAN GROW UP TO 1M IN LENGTH. ROOTS ARE WIRY, OFTEN SWOLLEN AND HAIRY - HOWEVER THERE ARE SOME VARIETIES THAT ARE HAIRLESS OR SOMETIMES HAVE HAIRS ALONG THE MARGINS. THE CAPSULE IS ROUND OR CYLINDRICAL, HAIRLESS, USUALLY RECURVED



THE FLOWERING STALKS ARE BEST HARVESTED BEFORE THE FLOWERS OPEN, THEY CAN THEN BE STEAMED OR BOILED IN MUCH THE SAME WAY AS ASPARAGUS, OR COOKED IN A STEW

IF THE FLOWER HAS OPENED - IT CAN STILL BE CONSUMED. EATEN RAW, ADDED TO A SALAD OR USED AS A TOPPER FOR OTHER DISHES

BELOW & FAR LEFT: NOTE THE ASPARAGUS TYPE FLOWER CAPSULES

LEFT: VELDKOOLS SUCCULENT LEAVES RADIATE OUT FROM A CENTRAL STALK



WATER BERRY

Latin: Syzygium spp.

Other Names: waterbessie, lilly pilly, brush cherry



THERE ARE MORE THAN 60 LILLY PILLY SPECIES CURRENTLY KNOWN AND EACH TREE BEARS FRUITS THAT VARY IN COLOR, SIZE AND FLAVOR - SOME HAVE NATURALIZED IN SOUTH AFRICA & SOME ARE EVEN INDIGENOUS PIONEERS.

WATERBERRY SPECIES CAN GROW TO A MAXIMUM HEIGHT OF 18M, HOWEVER MOST ARE SMALLER TO MEDIUM SIZED. THE LEAVES ARE OPPOSITE, SIMPLE, LANCEOLATE IN SHAPE FROM 4-8 CM LONG. FLOWERS ARE WHITE AND BORNE IN CLUSTERS. THE DARK PINK TO RED FRUITS ARE THE EDIBLE PARTS. THEY ARE ABOUT 15 MM IN DIAMETER AND ARE TIPPED WITH A PERSISTENT CALYX - THE CLAW LIKE PROTRUSIONS ON THE END OF THE BERRY.

THE INERIOR FLESH OF THE BERRY IS A LIGHTER SHADE OF PINK - OR SOMETIMES WHITE. IT CONTAINS A SINGLE SEED, WHICH WHEN SQUEEZED WILL DIVIDE INTO MULTIPLE SEGMENTS EACH CAPABLE OF GERMINATING

WATER BERRIES ARE BEST EATEN RAW. THEY HAVE AN EXQUISITE TASTE AND LIGHT COTTONY TEXTURE. THE FRUIT PULP CAN ALSO BE TURNED INTO A JAM OR COOKED TO BRING FLAVOR TO OTHER DISHES.

100G OF LILLY PILLY FRUIT CONTAINS 250MG OF POTASSIUM & 140MG OF CALCIUM - THATS EQUATES TO ROUGLY 20% OF OUR DAILY REQUIREMENT FROM A HANDFUL OF BERRIES. THIS BERRY ALSO CONTAINS AMINO ACIDS AND VITAMINS A, E AND C.

LEFT: LILLY PILLY FRUIT FROM LEFT, MAGENTA COLORED BERRY, SEED/PIT, EMBRYO DISSECTION

BELOW LEFT: SYZYGIUM CORDATUM - AN INDIGENOUS WATER BERRY



WATERCRESS

Latin: *Nasturtium officinale*

Other Names: true nasturtium, sterkkos, kerese

WATERCRESS IS A QUICK GROWING INVASIVE SPECIES OF WETLAND AREAS IN SOUTHERN AFRICA. THIS PLANT REPRODUCES RAPIDLY & PRODUCES LARGE AMOUNTS OF SEED - MAKING IT A VALUABLE FOOD SOURCE FOR THOSE IN NEED.

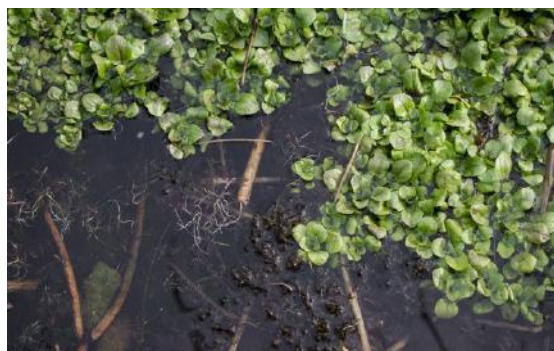
WATERCRESS IS EASY TO IDENTIFY BECAUSE IT FORMS A DENSE CARPET OF LEAVES ON WATER SURFACES. THE LEAVES ARE ALTERNATE, COMPOUND-PINNATE LEAVES. THESE ARE MADE UP OF DISSECTIONS - USUALLY 3 TO 11 LOBES OF ROUNDED DARK GREEN LEAFLETS. WATERCRESS IS A GLOSSY-LOOKING, MOSTLY HAIRLESS, AQUATIC OR SUB-AQUATIC PLANT. THE STEMS ARE HOLLOW & ALMOST CIRCULAR-SHAPED WITH RIDGES. NUMEROUS ROOTING HAIRS ARE FOUND JUST BELOW THE WATERLINE. ITS FLOWERS ARE SMALL & WHITE - THEY HAVE FOUR PETALS IN THE SHAPE OF A CROSS, THESE GIVE WAY TO LONG THIN SEED PODS

BELOW: ROOTING HAIRS ARE FOUND JUST BELOW THE WATERS SURFACE. NOTICE THE LEAF IS MADE OF OF 3 DISECTIONS



BELOW: GREEN WATERCRESS & RED WATERCRESS RESPECTIVELY

FAR LEFT: DAINTY WHITE FLOWERS ARE BORNE IN CLUSTERS



LEAVES AND STEMS ARE EDIBLE AND VERY PEPPERY - THEY CONTAIN HIGH QUANTITIES OF VITAMINS C AND K, VARIOUS MINERALS AS WELL AS OMEGA-3. SEEDS AND FLOWERS ARE ALSO EDIBLE.

BE SURE TO HARVEST FROM CLEAN SOURCES OF WATER IF YOU WANT TO CONSUME THIS RAW, HOWEVER WE ALWAYS ADVISE COOKING THIS PLANT WELL AS WATERCRESS GROWING IN STAGNANT WATER OR LOCATIONS CLOSE TO LIVESTOCK RUNOFF IS PRONE TO INFESTATION BY THE CYST STAGE OF A PARASITE CALLED FASCIOLA HEPATICA - WHICH HATCHES IN AND ATTACKS THE LIVER - COOKING DESTROYS THIS PARASITE.

WATER BLOMMETJIES

Latin: Aponogeton distachyos

Other Names: pondweed,
vleikos

WATER BLOMMETJIES ARE MOST LIKELY OUR MOST WELL KNOWN AQUATIC WEED. THIS WATER DWELLING DELICACY IS FOUND THROUGHOUT SOUTH AFRICA & IS FAST BECOMING NATURALIZED IN MANY PARTS OF THE WORLD.

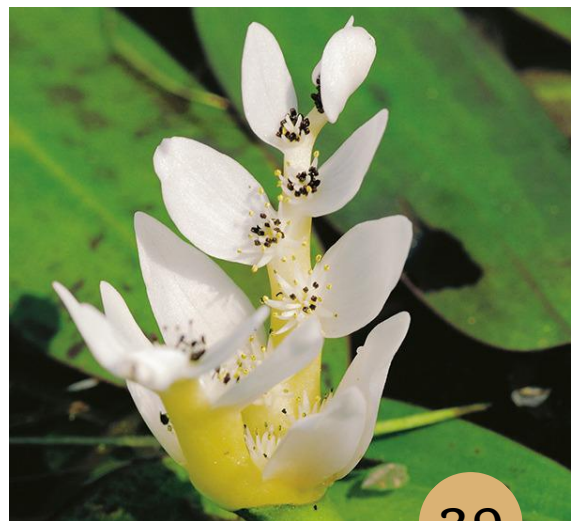
THIS AQUATIC PLANT IS EASY TO SPOT AND PROVIDES A SUBSTANTIAL FOOD SOURCE AS IT FLOWS FOR ALMOST HALF THE YEAR IN ADEQUATE CONDITIONS. THIS PLANT CAN BE IDENTIFIED BY ITS LONG, OVAL SHAPED LEAVES THAT FLOAT ON THE WATERS SURFACE, BUT IT IS USUALLY THE FLOWERS STANDING UP OUT OF THE WATER ABOVE THE LEAVES, THAT ATTRACTS THE MOST ATTENTION. EACH FLOWER CLUSTER IS FORKED IN TWO PARTS, THESE HAVE DOUBLE ROWS OF SHOWY WHITE TO CREAM COLORED BRACTS WHICH PROTECT THE SMALL AND FRAGRANT FLOWER WITHIN. TO HARVEST IT IS BEST TO PULL THE ENTIRE PLANT TO SHORE - AS MORE THAN A DOZEN FLOWER CLUSTERS ARE BORNE PER -PLANT.



THE ENTIRE FLOWER CLUSTER INCLUDING THE BRACTS ARE EDIBLE - BEST STEAMED OR MADE INTO A STEW. YOUNG SHOOTS, TUBERS & RHIZOMES ARE ALSO EDIBLE AND FILLED WITH STARCH - ROASTING THESE PRODUCES A GREAT FLOVOUR

BELOW: TWO BRACTS CAN BE SEEN ON EITHER SIDE OF THE YELLOW / CREAM COLORED FLOWER IN THE CENTER

BELOW: MANY COLOR VARIATIONS OCCUR IN UNOPENED FLOWER BUDS, FOR THE BEST FLAVOR NEW FLOWERS ARE CONSUMED - HOWEVER OLDER SPECIMENS WITH SEEDS ARE ALSO EDIBLE



WILD BANANA

Latin: *Strelitzia nicolai*

Other Names: natal wild banana,
giant white bird of paradise

THIS GREAT PIONEER HAS ESTABLISHED ITS Foothold ALL ALONG THE COASTAL AREAS OF SOUTHERN AFRICA.

THOUGH ITS LEAVES SOMEWHAT RESEMBLE A BANANA PLANT THESE SPECIES ARE IN FACT NOT RELATED & THUS DO NOT PRODUCE FRUIT - HOWEVER ITS SEEDS SURPASS BANANAS IN NUTRITION TENFOLD.

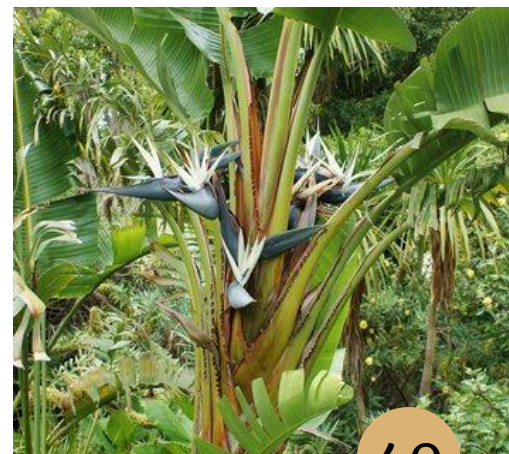
THE NATAL WILD BANANA CAN GROW UP TO 12M HIGH. THIS EVERGREEN TREE HAS MULTIPLE STEMS WITH ENORMOUS, OPPOSITE LEAVES WHICH TEAR IN THE WIND AND COME TO RESEMBLE GIANT FEATHERS, HENCE ITS OTHER NAME - BIRD OF PARADISE. THE FLOWER IS A DEFINING CHARACTERISTIC, IT IS CRANE SHAPED WITH WHITE SEPALS & BLUE PETALS, THESE ARE BORNE FROM PURPLISH BLUE, BOAT-SHAPE SHEATHS. THE WHOLE FLOWER RESEMBLES THE HEAD OF A BIRD. THE SEEDS ARE BLACK IN COLOR, WITH A BRIGHT ORANGE WOOLLY ARIL ON THE LOBE.



THE IMMATURE SEEDS ALONG WITH THEIR ORANGE ARILS ARE CONSUMED. WHEN PROCESSING THE SEEDS REMOVE & SET ASIDE THE ARILS. THE SEEDS ARE THEN GROUND INTO A FLOUR, MIXED WITH WATER & SHAPED INTO A ROUND COOKIE OR CAKE. EMBED THE OILY ARILS ONTO BOTH FLAT SIDES OF THE CAKE - THIS CAN THEN BE COOKED TO PRODUCE A HEARTY, FULFILLING MEAL FILLED WITH VITAMINS, MINERALS & LOTS OF PROTEIN. BE SURE TO ONLY HARVEST SEEDS FROM THE GIANT WHITE BIRD OF PARADISE AS OTHER STRELITZIA'S ARE NOT EDIBLE

LEFT: BLACK SEEDS ARE EDIBLE ALONG WITH THEIR ORANGE ARILS

BELOW: THE FLOWER OF THIS PLANT SOMEWHAT RESEMBLES A BIRD - BLUE AND WHITE IN COLOR THIS BIRD OF PARADISE IS EASY TO SPOT AMONGST OTHER STRELITZIAS



WILD LETTUCE

Latin: *Lactuca* spp.

Other Names: opium lettuce, bitter lettuce, prickly lettuce

ONCE YOU PUSH PAST THE BITTER TASTE OF WILD LETTUCE YOU FIND REMARKABLE NUTRITION AS WELL AS EXCEPTIONAL PAIN RELIEVING PROPERTIES FROM ITS WHITE SAP, MAKING IT A VITAL ALLY IN THE WILDERNESS

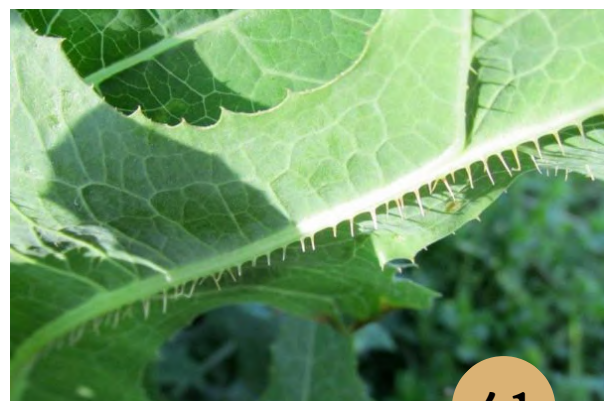
ALL WILD LETTUCE PLANTS HAVE A MILKY SAP, *L. VIROSA* LEAVES ARE MORE LANCE SHAPED WITH FINELY TOOTHED EDGES WHERE-AS *L. SERRIOLA* HAS COARSELY TOOTHED LEAVES. THEY CHANGES LITTLE IN APPEARANCE FROM YOUNG TO OLD, ONLY GROWING LARGER. KEY IDENTIFYING CHARACTERISTICS ARE A LINE OF MIDVEIN SPINES ON THE UNDERSIDE OF ALL WILD LETTUCE LEAVES, AS WELL AS ITS TAP ROOT, SIMILAR TO DANDELION. FLOWERS ARE BORNE ON SPIKES RATHER THAN IN A CLUSTER - THEY HAVE BETWEEN 5 AND 20 TOOTHED PETALS. MULTIPLE FLOWERS ARE PRODUCED ON EACH PLANT. THE STEM IS ALSO EASILY NOTICED AS IT IS THICK AND WHITE OR CREAM IN COLOR



WILD LETTUCE ARE THE ANCESTORS OF MODERN CULTIVATED LETTUCE - HOWEVER TO ONLY DIFFERENCE IS THAT THEY CONTAIN ALOT MORE NOURISHING VITAMINS AND MINERALS. LEAVES ARE BEST CONSUMED COOKED AS THIS REMOVES THE BITTERNESS. RAW LEAVES CAN ALSO BE CONSUMED FRESH - REMOVED THE MIDRIB WITH SPINES BEOFRE CONSUMPTION

BELOW: LEFT IS *L. SERRIOLA* (PRICKLY LETTUCE & RIGHT IS *L. VIROSA* (COMMON WILD LETTUCE)

FAR BELOW: NOTICE SPINE ON THE UNDERSIDE OF WILD LETTUCE LEAVES



WILD MUSTARD

Latin: *Sinapis arvensis*

Other Names: field mustard, charlock

MUSTARDS ARE AN EXCEPTIONALLY LARGE FAMILY OF PLANTS - THANKFULLY ALL MUSTARD SPECIES ARE EDIBLE AND EASY TO IDENTIFY - THE WILD MUSTARD VARIETY CAN YIELD TENS OF THOUSANDS OF SEEDS ALLOWING ONE AN ALMOST ENDLESS SUPPLY OF NUTRIENTS.

WILD MUSTARD LEAVES ARE FAIRLY ERRATIC - THE LEAVES LOOK VERY DIFFERENT FROM THE YOUNG TO THE MATURE PLANT AND ALSO LOOK DIFFERENT WHERE THEY ARE ON THE INDIVIDUAL PLANT. THE LOWER LEAVES HAVE A STEM, THE UPPER LEAVES ARE JOINED DIRECTLY TO THE MAIN STEM BUT ALL THE LEAVES HAVE HAIRS ON THEM, ARE MAINLY LOBED AND HAVE SERRATED EDGES. THE FLOWERS GROW IN CLUSTERS ON THE ENDS OF THE BRANCHING FLOWER STEMS, THEY HAVE FOUR YELLOW PETALS IN THE SHAPE OF A CROSS. THE STEM OF FIELD MUSTARD SOMETIMES HAS PURPLE COLORING AT THE LEAF AND BRANCH NODES. THE BEST WAY TO CORRECTLY IDENTIFY ANY MUSTARD SPECIES IS TO CRUSH LEAVES IN YOUR HAND - THE SMELL EMITTED SHOULD BE PUNGENT AND REMINISCENT OF MUSTARD

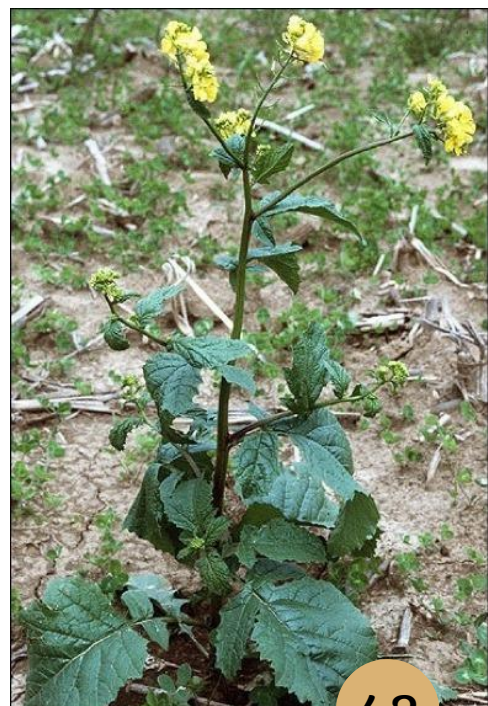


THE LEAVES OF ALL WILD MUSTARD ARE EDIBLE AT VARIOUS STAGES OF LEAF GROWTH - CONSUME THE NEWEST LEAVES TOWARDS TO TOP OF THE PLANT RAW. OLDER LEAVES MIGHT BE TOO STRONG FOR SOME PALATES, THESE ARE BEST BOILED.

SEEDS AND FLOWERS ARE ALSO EDIBLE. MUSTARD IS BEST USED TO FLAVOR OTHER DISHES, SEEDS CAN BE GROUND MIXED WITH WATER AND SALT TO MAKE A GREAT GARNISH

BELOW: UNOPENED FLOWER CLUSTERS MAKE A GREAT TRAIL SIDE SNACK IF YOU DONT MIND THE STRONG FLAVOR

FAR LEFT: SEEDS RANGE IN COLOR FROM BROWN TO BLACK



WILD RADISH

Latin: *Raphanus raphanistrum*

Other Names: white charlock, jointed charlock

ONE OF THE TASTIEST PIONEERS IN SOUTH AFRICA - IT MAY ONLY BE AROUND FOR A FEW WEEKS OF THE YEAR BUT THE WILD RADISH IS DEFINITELY ONE TO REMEMBER.

THE WILD RADISH IS A LOW GROWING PIONEER WITH A BUSHY ROSETTE OF LEAVES AT ITS BASE BASAL, THE STEM WHICH IS SLIGHTLY HAIRY HAS SHORTER AND LOBED LEAVES. ITS STALK BENDS OVER AND IT RARELY GETS MORE THAN A METER HIGH. WILD RADISHES HAVE MANY SINGULAR FLOWERS THAT RANGE IN COLOR FROM YELLOW TO PURPLE - HOWEVER WHITE IS MOST COMMON IN SOUTH AFRICA. EACH FLOWER CONTAINS FOUR PETALS AND FOUR SEPALS, WITH DISTINCT VEINING THAT ORIGINATES FROM ITS RED BASE. THE SEED PODS OF THE RADISH ARE SEGMENTED. WILD RADISH'S LASTLY HAVE A SINGLE TAPROOT WHICH IS SIMILAR TO THAT OF THE CULTIVATED RADISH BUT LESS ENLARGED



EDIBLE PARTS OF WILD RADISH INCLUDE THE LEAVES ESPECIALLY THE YOUNGER, LESS BITTER ONES, THE FLOWERS, THE FLOWER BUDS, THE ROOTS, & THE SEEDS

YOUNG & OLD LEAVES ARE BEST COOKED OR STEAMED, HOWEVER ONLY FOR A SHORT TIME AS THEY LOSE MASS AND FLAVOR QUICKLY. SMALLER TAPROOTS ARE IDEAL FOR COOKING AS THEY ARE LESS FIBROUS, THE FLOWER BUDS ARE GREAT STEAMED LIKE BROCCOLI & THE SEEDS LIKE OTHERS IN THE MUSTARD FAMILY CONTAIN A DISTINCTIVE FLAVOR - CRUSH THESE AFTER DRYING, ADD WATER & SALT



LEFT: SEED PODS ARE EDIBLE

BELOW RIGHT: FLOWERS HAVE WHITE PETALS WITH NOTICEABLE VEINS ORIGINATING FROM ITS MAROON BASE



WOOD SORREL

Latin: Oxalis spp.

Other Names: sour grass, fairy bells, true shamrock

WOOD SORRELS ARE A VERY LARGE FAMILY OF PLANTS - THERE ARE OVER 800 KNOWN VARIETIES WITH NO POISONOUS LOOK-ALIKES. TWO VARIETIES HAVE BECOME RAMPANT PIONEERS, INHABITING ALMOST EVERY UNUSED INCH OF SOIL IN SOUTH AFRICA

AT FIRST GLANCE, MANY PEOPLE MISTAKE WOOD SORREL FOR CLOVER, BUT THERE'S ONE MAJOR DIFFERENCE BETWEEN THESE TWO GENERA, IT IS ALSO ONE OF WOOD SORRELS MOST DEFINING CHARACTERISTICS - WOOD SORREL HAS HEART-SHAPED LEAVES, WHILE THE LEAVES OF CLOVERS ARE ROUNDED. WOOD SORREL ALSO HAS TINY BELL-SHAPED YELLOW FLOWERS CONSISTING OF FIVE PETALS. A FINAL DEFINING TRAIT OF WOOD SORREL IS THAT ITS LEAVES AND FLOWERS WILL FOLD UP & CLOSE IN THE EVENING, THEN REOPEN IN THE MORNING. THE TWO VARIETIES MOST OFTEN SEEN IN SOUTH AFRICA ARE *O. PES-CAPRAE* - YELLOW WOOD SORREL, THESE HAVE BRIGHT GREEN HEART SHAPED LEAVES & *O. CORNICULATA* WHICH HAS THE EXACT SAME SHAPED LEAVES BUT THEY CAN SOMETIMES TURN PURPLE



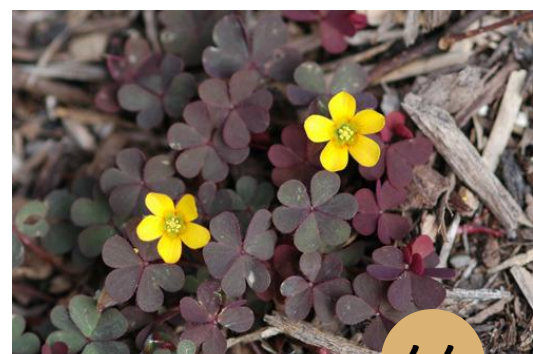
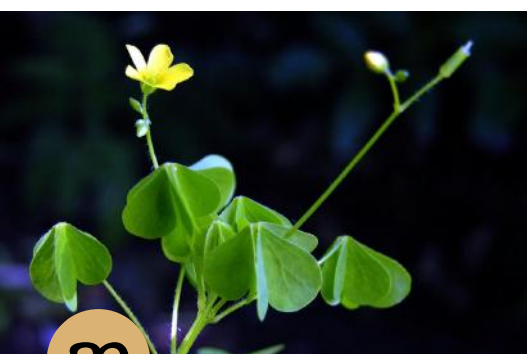
THE LEAVES, FLOWERS, FRUITS, SEEDS AND BULBS OF ALL WOOD SORREL SPECIES ARE EDIBLE. LEAVES TEND TO WILT VERY QUICKLY SO CONSUMPTION ON THE SPOT OR SHORTLY AFTER HARVESTING IS ADVISED. WOOD SORREL IS RICH IN VITAMIN C AND PACKS A VERY NICE SOUR FLAVOR - THIS IS DUE TO OXALIC ACID PRESENT IN THE PLANT.

WARNINGS OF OVER CONSUMPTION OF OXALIC ACID IS OFTEN GIVEN REGARDING THIS PIONEER, HOWEVER OXALIC ACID CAN BE FOUND IN FAR HIGHER QUANTITIES IN CULTIVATED GREEN VEGETABLES LIKE KALE, BROCCOLI & SPINACH.



RIGHT: WOOD SORREL ON THE LEFT & CLOVER ON THE RIGHT - CLOVER IS ALSO EDIBLE

BELOW: FROM LEFT - WOOD SORREL CLOSES ITS LEAVES AND FLOWERS AFTER TWILIGHT, FLOWERS ARE BRIGHT YELLOW WITH 5 PETALS, SOME VARIETIES OF WOOD SORRELS CAN TURN PURPLE WITH AGE





BACK TO OUR ROOTS

Mankind has utilized many wild plants as food sources for millennia - however, over the past few decades we as a species have strayed far from the knowledge we once possessed, the knowledge of nature providing everything we require. A resurgence towards a more natural way of eating has emerged. One of modern mans greatest fears is to eat wild plants, however we hope that by utilizing this almanac, confidence in your ability to wild harvest your fruits & vegetables will increase. The wild foods present in our ecosystems are filled to the brim with the necessary vitamins & minerals need for life, its up to us if we choose to utilize them or not

ONCE WE HAVE TASTED THIS WILDNESS, WE BEGIN TO
HUNGER FOR A FOOD LONG DENIED TO US, AND THE MORE WE
EAT OF IT THE MORE WE WILL AWAKEN

- STEPHEN HARROD BUHNER

VITAMIN & MINERAL GUIDE

VITAMIN A - 900MCG

CONVERTS FOOD INTO ENERGY. HEALTHY SKIN, HAIR, MUSCLES & BRAIN. NERVE FUNCTION.

VITAMIN B2 - 1.2MG

CONVERTS FOOD INTO ENERGY. HEALTHY SKIN, HAIR, MUSCLES & BRAIN. NERVE FUNCTION.

VITAMIN B5 - 5MG

HELPS MAKE RED BLOOD CELLS. INFLUENCES COGNITIVE ABILITIES AND IMMUNE FUNCTION.

BIOTIN - 30MCG

VITAL FOR NEW CELL CREATION IN THE BODY THROUGH ALL STAGES OF LIFE.

VITAMIN B12 - 2.4MG

MAKES COLLAGEN. PRODUCES NEUROTRANSMITTERS SEROTONIN & NOREPINEPHRINE. IMMUNE SYSTEM.

CHOLINE - 500MG

STRENGTHENS & FORMS TEETH & BONES. REGULATES HORMONES. RELEASES NEUROTRANSMITTERS.

VITAMIN E - 15MG

ACTIVATES PROTEINS & CALCIUM ESSENTIAL TO BLOOD CLOTTING.

A

ESSENTIAL FOR VISION. KEEPS TISSUES AND SKIN HEALTHY. BONE GROWTH. IMMUNE SYSTEM.

B1

VITAMIN B1 - 1.1MG

B2

CONVERTS FOOD INTO ENERGY. NEEDED FOR HEALTHY SKIN, HAIR, BLOOD, & BRAIN DEVELOPMENT.

B3

VITAMIN B3 - 15MG

B5

MAKES LIPIDS (FATS), NEUROTRANSMITTERS, STEROID HORMONES, & HEMOGLOBIN.

B6

VITAMIN B6 - 1.4MG

B8

MAKES AND BREAK DOWN FATTY ACIDS. NEEDED FOR HEALTHY BONES AND HAIR.

B9

FOLIC ACID - 400MCG

B12

NEW CELL DEVELOPMENT. PROTECTS AND GROWS NERVE CELLS. MAKES RED BLOOD CELLS AND DNA

C

VITAMIN C - 80MG

C2

METABOLIZES AND TRANSPORTS FATS. HELPS MAKE THE NEUROTRANSMITTER ACETYLCHOLINE.

D

VITAMIN D - 15MCG

E

ANTIOXIDANT. NEUTRALIZES UNSTABLE MOLECULES THAT CAN DAMAGE CELLS. PROTECTS VIT A AND FATS

K

VITAMIN K - 100MCG

CALCIUM - 1000MG

BALANCES FLUIDS IN THE BODY. A COMPONENT OF STOMACH ACID, ESSENTIAL TO DIGESTION.

CHROMIUM - 30MCG

PLAYS AN IMPORTANT ROLE IN IRON METABOLISM. IMMUNE SYSTEM. HELPS MAKE RED BLOOD CELLS

FLUORIDE - 3MG

SETS BODY TEMPERATURE & INFLUENCES NERVE & MUSCLE FUNCTION & GROWTH.

IRON - 8MG

NEEDED FOR MANY CHEMICAL REACTIONS IN THE BODY. WORKS WITH CALCIUM.

MANGANESE - 2MG

WARDS OFF NEUROLOGICAL DAMAGE. PART OF SEVERAL ENZYMES.

PHOSPHORUS - 700MG

BALANCES FLUIDS IN THE BODY. STEADIES HEARTBEAT & SENDS NERVE IMPULSES.

SELENIUM - 55MCG

BALANCES FLUIDS IN THE BODY. HELPS SEND NERVE IMPULSES. IMPACTS BLOOD PRESSURE..

SULPHUR - 850MG

FORMS ENZYMES ,PROTEINS & NEW CELLS. IMMUNE SYSTEM. NEEDED FOR TASTE, SMELL, & HEALING.

OMEGAS 3,6,9 - 500MG, 1.5G, 500MG

CA

BUILDS & PROTECTS BONES & TEETH. HORMONE SECRETION. BLOOD CLOTTING. NERVE SUPPORT

CL

CHLORIDE - 2.2G

CR

MAINTAIN NORMAL BLOOD GLUCOSE LEVELS. NEEDED TO FREE ENERGY FROM GLUCOSE.

CU

COPPER - 900MCG

F-

ENCOURAGES STRONG BONE FORMATION. KEEPS DENTAL CAVITIES FROM STARTING OR WORSENING.

I

IODINE - 150MCG

FE

TRANSPORTS OXYGEN THROUGH THE BODY. NEEDED TO PRODUCE AMINO ACIDS, COLLAGEN & HORMONES

MG

MAGNESIUM - 400MG

MN

FORMS BONES. HELPS METABOLIZE AMINO ACIDS, CHOLESTEROL, & CARBOHYDRATES.

MO

MOLYBDENUM - 45MCG

P

PROTECTS BONES & TEETH. PART OF DNA & RNA. HELP SHUTTLE NUTRIENTS INTO AND OUT OF CELLS.

K

POTASSIUM - 4.7G

SE

NEUTRALIZES UNSTABLE MOLECULES THAT CAN DAMAGE CELLS. REGULATE THYROID ACTIVITY.

NA

SODIUM - 2300MG

S

SHAPES AND STABILIZES SOME PROTEIN STRUCTURES. NEEDED FOR HEALTHY HAIR, SKIN, & NAILS.

ZN

ZINC - 10MG

Ω

HEART HEALTH. MENTAL HEALTH. FIGHTS INFLAMMATION. ENERGY. BRAIN DEVELOPMENT.

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