

# COOPER MOUNTAIN VINEYARDS GREEN PROGRAM

IN THE 1990'S COOPER  
MOUNTAIN VINEYARDS BEGAN A  
QUEST FOR SUSTAINABILITY FROM  
EARTH TO AIR. BY 1999 CMV  
OBTAINED ORGANIC/  
BIODYNAMIC WINERY  
CERTIFICATIONS AND TODAY BY  
2010 CM HAD ACHIEVED CARBON  
NEUTRALITY. CMV IS  
COMMITTED TO CRAFTING  
PREMIUM WINES WHILE  
RESPECTING THE SOILS AND  
CLIMATE THE GRAPES  
ORIGINATE FROM.

# ORGANIC VINEYARDS

- CONVENTIONAL VITICULTURE RELIES ON MAN-MADE CHEMICALS FOR FERTILIZATION, WEED AND PEST CONTROL
- ORGANIC VINEYARD PROGRAMS ARE PROHIBITED FROM USING SYNTHETIC SUBSTANCES THROUGHOUT THE YEAR
- IN AN ORGANIC SPRAY PROGRAM SULFUR IS THE MAIN CONTROL AGENT
- SULFUR IS SOMETIMES USED IN ROTATION WITH STYLET-OIL, BICARBONATES AND BIOLOGICAL CONTROL AGENTS

# ORGANIC CELLAR

- JUST LIKE OUR VINEYARDS, THE WINERY IS CERTIFIED BY OREGON TILTH. ULTIMATELY THIS MEANS IN THE CELLAR THE FOLLOWING PRACTICES ARE CONTROLLED ANNUALLY BY THE USDA FOR QUALITY CONTROL
- NO GENETICALLY MODIFIED ORGANISMS PRODUCTS
- SULFITES ADDITIONS CANNOT EXCEED 100PPM'S (50 % LESS THAN CONVENTIONAL WINES)
- ANY ADDITIONAL INGREDIENTS SUCH AS "SUGAR" HAVE TO BE CERTIFIED ORGANIC
- ALL PRODUCTS USED FOR CLEANING INSIDE THE WINERY MUST BE BIODEGRADABLE; PRODUCTS LIKE IODINE AND CHLORINE ARE STRICTLY PROHIBITED
- ANY YEAST NUTRIENTS (USED DURING THE FERMENTATION) MUST CONTAIN ONLY ORGANIC NITROGEN
- PROCESSING AIDS USED AND EVEN STORED IN THE WINERY MUST BE LISTED IN THE NATIONAL ORGANIC PRODUCT LIST

# ORGANIC WINE

- AS MANDATED BY THE NATIONAL ORGANIC PROGRAM ORGANIC WINE MUST CONTAIN LESS THAN 10PPM OF SULFITES IN THE FINAL PRODUCT
- SULFITES OCCUR NATURALLY IN THE FERMENTATION PROCESS
- COOPER MOUNTAIN ADDS SULFITES TO ALL OF OUR WINES EXCEPT OUR 'LIFE' PINOT NOIR
- IN THE 'LIFE' PINOT NOIR WE HAVE BEEN WORKING ON REPLACING THE ROLE OF S02 ADDITIONS BY INCREASING THE LEVEL OF ANTIOXIDANTS THAT OCCUR NATURALLY IN THE GRAPES. THE NATURAL ANTIOXIDANTS ESSENTIALLY BECOME THE PRESERVATIVE IN THE WINE AND MAKES THE RELIANCE ON SULFITE ADDITIONS OBSOLETE. RECENT ANALYSIS HAVE DEMONSTRATED THE HIGHER LEVEL OF ANTIOXIDANTS IN OUR CURRENT 'LIFE' PINOT NOIR.

# BIODYNAMIC VINEYARDS

- NO SYNTHETIC AND OUTSIDE FERTILIZER SOURCES
- NO SYNTHETIC PESTICIDES AND FUNGICIDES
- THE FERTILIZATION IS APPLIED WITH OUR OWN COMPOST WHICH RECEIVED BIODYNAMIC PREPARATION
- USE OF HERB PREPARATIONS IN ORDER TO CREATE A NATURAL BALANCE IN THE VINEYARD
- MAINTAIN AN ECOSYSTEM WITHIN AND AROUND THE VINEYARD IN ORDER TO DEVELOP THE USE OF PREDATORS AND BIOLOGICAL LIFE IN THE SOIL
- SPRAY PERFORMED IN ACCORDANCE TO THE SOLAR AND LUNAR CALENDAR

# OUR VINEYARDS ARE PROTECTED BY

- SULFUR: LOW INPUT APPLIED IN TIMELY MANNER IN ACCORDANCE TO THE WEATHER CONDITION
- MIXTURES OF HERBS AND CLAY APPLIED IN ACCORDANCE TO THE WEATHER CONDITION AND BLOCK SPECIFICATIONS
- IF DISEASE APPEARS, A SPRAY CONTAINING THE FUNGUS DILUTED BY 1:800,000 WILL BE SPRAYED TO THE VINES IN ORDER TO INCREASE THEIR RESISTANCE

# BIODYNAMIC WINE = AUTHENTIC WINES

- MUST BE FROM BIODYNAMIC GRAPES
- NATIVE YEAST AND BACTERIA FOR FERMENTATION
- MAXIMUM 100 PPM TOTAL SO<sub>2</sub> ADDED FROM THE PRIMARY FERMENTATION TO THE BOTTLE
- NO ACIDIFICATION ALLOWED
- NO CHAPTALIZATION ALLOWED
- NO CORRECTIVE ADDITIONS ALLOWED

# WHAT IS THE RESULT OF BIODYNAMICS IN A GLASS OF WINE?

- WINES ARE MORE LIVELY AND BALANCED
- THE WINES ARE LESS SUBJECT TO FLAW SUCH AS OXIDATION, MICROBIOLOGICAL ATTACK, ETC
- THEY EXPRESS THE NOTION OF TERROIR: AUTHENTICATION WITH OUR STYLE AND PROFILE
- THEY ARE HEALTHIER

# FACTS ABOUT BIODYNAMICS

- 4100 FARMS ARE CERTIFIED BIODYNAMIC BY DEMETER INTERNATIONAL
- ONLY 90 IN US
- 30 OF THOSE 90 ARE WINERIES

# 7 RULES OF OUR VINEYARD MANAGEMENT

# 1 – VINEYARD: HERITAGE

- PLANTING AND MANAGING A VINEYARD REQUIRES DEDICATION AND HARD WORK
- IF A VINEYARD IS PROPERLY MAINTAIN, THE VINES CAN PRODUCE GRAPES UP TO 90 YEARS
- ALL OUR DECISIONS ARE BASED ON THIS PRIMARY FACTOR: TREAT THE VINE FOR YOUR CHILDREN AND GRAND CHILDREN

# 2 – IRRIGATION

- IRRIGATION IS PROHIBITED IN OUR VINEYARD
- THE VINES NEED TO ADAPT TO THE MACROCLIMATE AND BY REFUSING ANY TYPE OF IRRIGATION, WE ARE TRAINING THEM TO “SUFFER” AND FULLY “ENJOY” THE SMALL QUANTITY OF WATER AVAILABLE TO THEM

# 3- PREVENTION VS. REPRESSION

- IN EMPHASIZING HIGH QUALITY MANUAL WORK IN THE VINEYARDS, WE REDUCE THE RISK OF VINE UNBALANCE BY 80 %
- TREATING IS SEEN AS A FAILURE, PREVENTING IS SUCCESS

# 4-DISEASE: THE DOMINO EFFECT

- MILDEW, MITES, BOTRYTIS, ETC... YOU NAME IT. SOME ARE FUNGUS, SOME VIRUSES AND SOME INSECTS. ANY TREATMENT MADE WILL HAVE AN IMPACT ON THE DISEASE BUT ALSO ON POSITIVE ELEMENTS. OUR CONCEPT IS ANY APPLICATION OF ORGANIC FUNGICIDES NEEDS TO BE LIMITED AND COUNTER BALANCED BY A NATURAL APPROACH SUCH AS HERBAL REMEDIES.

# 5 – THE LAW OF THE MINIMUM

- WE FOLLOW THE LAW OF THE MINIMUM. THIS PRINCIPLE, CREATED BY CARL SPRENGEL IN 1928, STATES THAT GROWTH IS CONTROLLED NOT BY THE TOTAL OF RESOURCES AVAILABLE, BUT BY THE SCARCEST RESOURCE. THIS CONCEPT WAS ORIGINALLY APPLIED TO PLANT OR CROP GROWTH, WHERE IT WAS FOUND THAT INCREASING THE AMOUNT OF PLENTIFUL NUTRIENTS DID NOT INCREASE PLANT GROWTH. ONLY BY INCREASING THE AMOUNT OF THE LIMITING NUTRIENT (THE ONE MOST SCARCE IN RELATION TO "NEED") WAS THE GROWTH OF A PLANT OR CROP IMPROVED.

# 6 - HOMEOPATHY

- THE MOST IMPORTANT PART
- THE USE OF HOMEOPATHY REMEDIES IS ESSENTIAL IN THE BIODYNAMIC APPROACH
- THE CONCEPT APPLIED AT COOPER MOUNTAIN VINEYARDS IS BASED ON ISOLATING EACH BLOCK WITH THEIR OWN ENTITY. THE REMEDIES WILL BE SPRAYING (20 GAL H<sub>2</sub>O + PLANTS DILUTED AT 30X) ON THE CANOPY IN ORDER TO PREVENT ANY UNBALANCE AND THEREFORE DISEASES

# 7. THE WINES

THE WINES ARE TELLING US THE STORY OF OUR VINEYARD. EVERY LOT WILL BE TASTED AND NOTED IN ORDER TO ASSESS THE QUALITY OF OUR VINEYARD MANAGEMENT BUT ALSO, IN ORDER TO ANTICIPATE ANY POSSIBLE ISSUES COMING IN THE NEXT THREE YEARS. THE WINES ARE THE MIRROR OF OUR WORK.

# CARBON NEUTRALITY-WHY?

IN 1978 WHEN OWNER ROBERT GROSS PLANTED HIS FIRST VINE IT WAS NOT MERLOT, NOR CABERNET. IN FACT HE LEFT WASHINGTON STATE AND TRAVELED SOUTH TO OREGON'S WILLAMETTE VALLEY IN PURSUIT OF THE HOLY GRAIL OF VARIETALS: PINOT NOIR. IT IS THAT VERY REASON THAT OVER 300 WINEMAKERS HAVE SCATTERED AMONGST THE VALLEY TODAY. ALL PURSUING THE SAME DREAM, ALL RELYING ON THE COOLER WEATHER PATTERNS, ALL TO GROW PINOT NOIR. HOWEVER THE THREAT OF CLIMATE CHANGE THROUGH GLOBAL WARMING COULD DRASTICALLY ALTER THE LANDSCAPE OF GRAPE GROWING IN THE WILLAMETTE VALLEY. EXPERTS AGREE THAT ONE OF THE FIRST INDUSTRY THAT WILL AFFECTED BY GLOBAL WARMING WILL BE THE WINE INDUSTRY AND HENCE IT IS OUR DUTY TO LEAD THE AGRICULTURAL BUSINESS TO NEUTRALITY. DURING WINE PRODUCTION WINERIES EMIT CARBON DIOXIDE(CO<sub>2</sub>) THAT ULTIMATELY CONTRIBUTES TO GLOBAL WARMING. HOWEVER COOPER MOUNTAIN IS SLATED TO REDUCE OUR GREENHOUSE GAS EMISSIONS TO ZERO BY EARLY 2009. VIVE PINOT NOIR AND AL GORE!

# GREENHOUSE GAS EMISSION SOURCES IN A WINERY OPERATION

- MOBILE COMBUSTION-FUEL CONSUMED BY WINERY OWNED VEHICLES
- STATIONARY COMBUSTION-HOT WATER HEATERS
- WASTE DISPOSAL ONSITE-PAPER OR PAPER BOARD, METALS, PLASTICS, GLASS, LEES, VINEYARD WOOD PRUNING, VINEYARD LEAFY WASTE, ETC
- FUGITIVE EMISSIONS-GREENHOUSE GAS EMISSIONS THAT ARISE FROM LEAKS FROM SOURCES LIKE REFRIGERATION UNITS
- VINEYARD EMISSIONS-FERTILIZERS WITH NITROUS OXIDE, SOIL CULTIVATION, ROW CROPPING SEQUESTRATION
- WINERY FERMENTATION
- PURCHASED POWER

# HOW TO BECOME CARBON NEUTRAL? MITIGATION FOR A WINERY OPERATION

- NO WINERY CAN BECOME COMPLETELY CARBON NEUTRAL
- THE GOAL IS TO LOWER YOUR CARBON EMISSIONS AS LOW AS POSSIBLE AND THEN PURCHASE CARBON OFFSETS
- TO LOWER CARBON EMISSIONS COOPER MOUNTAIN IS IMPLEMENTING:
  - A.) RENEWABLE ENERGY (SOLAR)
  - B.) BIODIESAL
  - C.) RETROFITTING ELECTRICAL OUTLETS
  - D.) CONTINUAL EDUCATION FOR EMPLOYEES ON INTERNAL ENERGY CONSERVATION TECHNIQUES FROM RECYCLING WASTE TO MORE ENERGY EFFICIENT TRACTOR USAGE