

PESTICIDES AND
FAMILIES...AZULINE



RICK ROEHM...
HELENA AGRI ENTERPRISES



THERE ARE CONTACT HERBICIDES...

FIVE ACTIVE INGREDIENTS AND FOUR MODES OF ACTION

AND THERE ARE SYSTEMIC HERICIDES...

NINE ACTIVE INGREDIENTS AND FIVE MODES OF ACTION

AMONG EACH OF THESE, THERE ARE LABEL NUANCES REGARDING DRINKING, SWIMMING, FISHING, IRRIGATING AND THE OVERALL FATE OF THE WATER AFTER YOUR APPLICATION.
IN ADDITION, THE TYPE OF TARGET WEED IS PARAMOUNT TO SUCCESS...



WE HAVE YOUR SUBMERGED WEEDS...



YOU'VE GOT THE EMERGED WEEDS...



UGA1391156

FLOATING WEEDS...



AND THE SHORELINE, GRASSES AND DITCHBANK WEEDS CAN BE LUMPED TOGETHER...



FOR TERRESTRIAL WEEDS, CERTAIN FAMILIES OF HERBICIDES (moa's) DO BETTER ON CERTAIN FAMILIES OF WEEDS.

MATCH THE WEED FAMILY WITH THE HERBICIDE FAMILY

FOR AQUATIC WEEDS, CERTAIN FAMILIES (moa's) DO BETTER WITH CERTAIN TYPES OF PLANTS AND HOW THEY GROW



THE CONTACT HERBICIDES...

COPPER COMPLEX/SULFATES
AND
HYDROGEN PEROXIDE/PEROXYACETIC ACID

THESE ARE VERY GOOD, SAFE ALGAECIDES
AND BACTERIACIDES

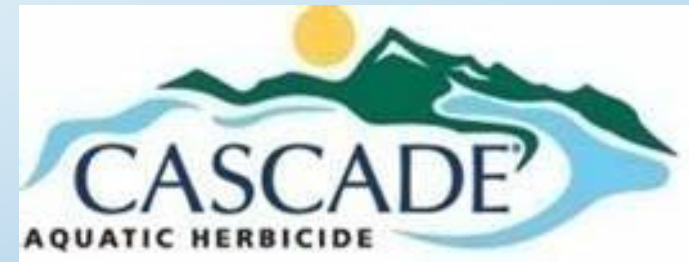


WHILE THE FULL MODE OF ACTION OF ENDOTHOL IS NOT COMPLETELY UNDERSTOOD, IT DOES INHIBIT LIPID AND PROTEIN BIOSYNTHESIS CAUSING MEMBRANE LEAKAGE

VERY BROAD SPECTRUM CONTROL ON SUBMERSED WEEDS SUCH AS EURASIAN WATERMILFOIL, PONDWEEDS AND HYDRILLA



MOST FORMULATIONS OF ENDOTHOL ALLOW FOR IRRIGATION DITCH APPLICATIONS AS WELL AS TO PONDS AND LAKES...



DIPOASSIUM SALT IS CASCADE OR AQUATHOL
MONO AMINE SALT IS TETON OR HYDROTHOL

DIFFERENT STUFF BUT SAME FAMILY...

HYDROTHOL IS THE MUCH MORE AGGRESSIVE SALT
OF THE TWO...BETTER ALGAECIDE AND CAN BE HARD ON FISH

AQUATHOL DOES NOTHING ON ALGAE AND IS A
POOR WAY TO KILL FISH...



DIQUAT IS A VERY FAST ACTING, CELL WALL DISRUPTOR
HERBICIDE USED AS A BURN DOWN MATERIAL...
CONTACT TIME WITH THE TARGET IS IMPERATIVE...



SureGuard[®]

H E R B I C I D E



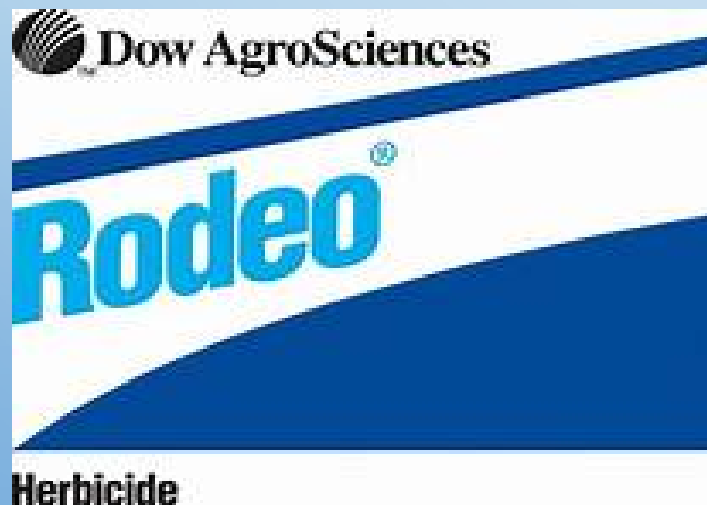
FLUMIOXAZIN IS THE ACTIVE INGREDIENT IN CLIPPER
AND SUREGUARD...VERY STRONG PPO ON SUBMERGED
AND FLOATING WEEDS

STINGRAY IS THE OTHER PPO INHIBITOR...
FAST ACTING CONTACT MATERIAL, GOOD ON WATER
HYACINTH, DUCKWEED AND SALVINIA



SYSTEMIC AQUATIC HERBICIDES INCLUDE...

GOOD OL' GLYPHOSATE. NO IRRIGATION RESTRICTIONS.
NON SELECTIVE. HAS TO CONTACT THE WEED.
AND THE ONLY MODE OF ACTION OF ITS KIND



IMAZAPYR AND IMAZAMOX ARE REAL SIMILAR
ALS INHIBITORS

IMAZAPYR WORKS BEST AS A SPRAY TO EMERGENT
VEGETATION WHILE IMAZAMOX IS GOOD ON
SUBMERSED AND FLOATING WEEDS



GALLEON IS THE BEST ALS INHIBITOR FOR SUBMERSED WEEDS. ALSO WILL GET MANY FLOATING AND EMERGED WEEDS. MINIMAL RESTRICTIONS ON IRRIGATING, NONE ON DRINKING OR OTHER USES





TradewindTM

AQUATIC HERBICIDE

BISPYRIBAC-SODIUM IS A BROAD SPECTRUM ALS
HERBICIDE THAT PICKS UP FLOATING AND SUBMERGED
VEGETATION

THE AMINE, ACID AND CHOLINE FORMULATIONS OF TRICLOPYR
ARE AQUATIC GROWTH REGULATORS FROM THE
PYRADINE FAMILY



GOOD ON EMERGED AND SUBMERGED DICOTS
WILL HAVE IRRIGATION RESTRICTIONS

THE OTHER AQUATIC GROWTH REGULATOR IS
2,4-D...ESTER, AMINE, CHOLINE AND ACID FORMS ARE
SELECTIVE TO FLOATING, EMERGED AND SUBMERGED DICOTS



THE FORMULATION WILL DETERMINE YOUR SUCCESS



FLORPYRAUXIFEN BENZYL IS A NEW CLASS OF AUXIN
HERBICIDE VERY ACTIVE ON MILFOIL,
PARROTFEATHER...AND OTHERS.

VERY UNIQUE LABEL RATE DESCRIPTION PDU'S...



OASIS IS TOPRAMEZONE, HPPD INHIBITOR

THIS CAN BE SPRAYED ON THE BANKS OR SHORLINE
OR INTO THE WATER ON EMERGED WEEDS

THE MOST COMMON WAY TO APPLY FLURIDONE
IS WITH ONE OF THE SONAR FORMULATIONS...
THIS IS THE ONLY CBI THAT HAS AN AQUATIC ALLOWANCE



THERE YOU HAVE IT. NINE MODES OF ACTION OVER
FOURTEEN DIFFERENT ACTIVE INGREDIENTS

FIVE ARE CONTACT ACTIVES, NINE ARE SYSTEMICS

ALL BUT ONE ARE OFF PATENT



AS FAR AS WHAT GOES WHERE...



ALL OF THESE EXCEPT TRADEWIND CAN GO INTO WATER USED IRRIGATING...

IMAZAPYR AND TRICHLOPYR REQUIRE 120 DAYS

CLEARCAST, GALLEON OASIS YOU'LL WANT TO TEST FOR RESIDUAL 7-14 DAYS FOR SONAR AND STINGRAY

5 DAYS FOR CLIPPER, 1-35 DAYS FOR PROCELLACOR

AND NO DAYS FOR THE REST EXCEPT THE 2,4-D WHICH MATTERS WHERE YOU'RE IRRIGATING



ALRIGHT...THAT'S ENOUGH. HOW ABOUT ANY QUESTIONS.