

## Lecture -11

### NOMENCLATURE OF COMMONLY AVAILABLE HERBICIDES IN INDIA

Prior to the widespread use of chemical herbicides, mechanical control and cultural controls, such as altering soil pH, salinity, or fertility levels were used to control weeds.

The first widely used herbicide was 2,4-dichlorophenoxyacetic acid, often abbreviated 2,4-D which kills many broadleaf plants while leaving grasses largely unaffected (high doses of 2,4-D at crucial growth periods can harm grass crops such as maize or cereals). The low cost of 2,4-D has led to continued usage today and it remains one of the most commonly used herbicides in the world.

In 1950s triazine family of herbicides, which includes atrazine was introduced. Atrazine does not break down readily (within a few weeks) after being applied to soils of above neutral pH. Atrazine is said to have carryover, a generally undesirable property for herbicides. Glyphosate, frequently sold under the brand name Roundup, was introduced in 1974 for non-selective weed control. It is now a major herbicide in selective weed control in growing crop plants due to the development of crop plants that are resistant to it.

Many modern chemical herbicides for agriculture are specifically formulated to decompose within a short period after application. This is desirable as it allows crops which may be affected by the herbicide to be grown on the land in future seasons. However, herbicides with low residual activity (i.e., that decompose quickly) often do not provide season-long weed control.

#### List of herbicides with their common name and chemical name

S.No	Common Name	Trade Name	Chemical Name
<b>Aliphatic carboxylic</b>			
1	Acrolein	Aqualin	2-propenal
2	Allyl alcohol	Allyl alcohol	2-propen-1-ol
3	TCA	TCA	
4	Dalapon	Dalapon, Dowpan	
<b>Phenoxy Carboxylic</b>			
1	2,4,D	2,4,D; Fernoxone	2,4-dichlorophenoxyacetic acid
2	2,4,5 T	Weedar; Weedone	2,4,5-trichlorophenoxy acetic acid
<b>Phenyl acetic acid</b>			
1	Fenac	Fenac	2,3,6-trichlorophenyl acetic acid

<b>Benzoic acid</b>			
1	Dicamba	Banvel	2-methoxy - 3,6-dichloro benzoic acid
2	2,3,6 - TBA	Trysben; Benzac	2,3,6-trichlorobenzoic acid
<b>Phthalic acid</b>			
1	Naptalam	Alanap; Peach thin 322	<i>N</i> -1-naphthylphthalamic acid
2	Endothol	Aquathal; Hydrothal	
<b>Phenol</b>			
1	PCP	Premerge; DNBP	Pentachlorophenol
2	Dinoseb	Basanite	2-sec-butyl-4,6-dinitrophenol
<b>Dinitroaniline</b>			
1	Fluchloralin	Basalin	<i>N</i> -propyl - <i>N</i> (2-chloroethyl)-4-(trifluoromethyl) - 2,6 dinitro-aniline
2	Isopropalin	Paaron	<i>N,N</i> -dipropyl- 4-isopropyl -2,6-dinitro aniline
3	Pendimethalin	Prowl; Herbadex; Stomp	<i>N</i> -(1-ethylpropyl)-3,4-dimethyl-2,6-dinitroaniline
4	Trifluralin	Treflan	<i>N,N</i> -dipropyl-4-(trifluoromethyl) - 2,6-dinitroaniline
<b>Benzonitrile</b>			
1	Dichlobenil	Casoron	2,6, - dinitrobenzonitrile
2	Bromoxynil	Brominol; Butril	3,5-dibromo-4-hydroxybenzonitrile
<b>Triazines</b>			
1	Atrazine	Aatres; Gesprim	2-chloro-4-ethylamino-6-isopropylamino-S-triazine
2	Simazine	Princep; gesatop; Tapazine	2-chloro-4,6-bis(ethylamino) -S -triazine
<b>Urea</b>			
1	Diuron	Karmex	3-(3,4-dichlorophenyl)-1,1-dimethylurea
2	Monuron	Telvar	3-(4-chlorophenyl)-1,1-dimethylurea
3	Isoproturon	Tolkan; Arelon	3-(4-isopropylphenyl)-1,1-dimethylurea
<b>Phenyl Carbamate</b>			
1	Phenmedipham	Betanol	3-(methoxycarbonyl)amino]phenyl (3-

			methylphenyl)carbamate
2	Propham	Chem -hoe	Isopropyl phenylcarbamate
<b>Thiocarbamate</b>			
1	Butylate	Bolero; Saturn	S-ethyl diisobutyl thiocarbamate
2	Thiobencarb	Odram; Saturn	S-4-chlorobenzyl diethyl(thiocarbamate)
3	Metham	Vepam; VPM	Sodium methyl dithiocarbamate
<b>Acid amide</b>			
1	Alachlor	Lasso	2-chloro-2',6'-diethyl-N-methoxymethylacetanilide
2	Butachlor	Machete; Delchlor	N-butoxymethyl-2-chloro-2',6'-diethylacetanilide
<b>Organic arsenical</b>			
1	Cacodylic acid	Phyto 138; Eras	Dimethyl arsonic acid
2	MAA	Ansar	Methane arsonic acid
<b>Uracil</b>			
1	Bromacil	Hyvar-X; Krovar -1	5-bromo-3-sec-butyl-6-methyluracil
<b>Diphenyl ether</b>			
1	Nitrofen	TOK E 25	2,4-dichlorophenyl p-nitrophenyl ether
2	Oxyfluoren	Goal	2- choloro – 1-(3-ethoxy-4nitrophenoxy) -4-(trifluoro methyl) benzene
<b>Bipyridilium</b>			
1	Diquat	Reglone	6,7-dihydrodipyrdo[1,2-a:2',1'-a]pyrazinediium
2	Paraquat	Gramaxone	1,1'-dimethyl-4,4'-bipyridinium
<b>Unclassified</b>			
1	Glyphosate	Round up; Glycel	N-(phosphanomethyl) glycine
2	Picloram	Tordon	4-amino 3,5,6 –trichloro picolinic acid
<b>Inorganic herbicides</b>			
1	Ammoniumsulphamate		
2	Sodium arsenite		

