

**v,uykbu 0; k[; ku ds elè; e l s eNyh fd l kul d k l 'kädj.k****vfrk 'kek] vfrk 'kek] ,oa ujsk dèkj dMiky**

—f'k l pkj foHkx] —f'k egkfo |ky;| th ch ;w ,s vks Vh] iruxj&amp;263 153] mrjk[k.M] Hkkjra

iklr%fnl Ecj 2020

Lohdr% tuojh 2021

**Lkjlk**

mUjk[kM dsmekel g uxj ftysdsuthekcn xkp ds100 erL; —"kdka ij orèku 'kkk fd; k x; kA l oèk.k l ph dselè; e l svko'; drk dk vkdyu fd; k x; kA vko'; drk el; kadu dsvekèkj ij] , d v,uykbu 0; k[; ku fn; k x; k FkA ml dsckn Kku dk vkdyu fd; k x; kA ; g crk; k x; k fd eNyh dsvfekdkk fd l ku OkbVksykadVu vksj tksykadVu rkyk ea[kj irokj cçaku] Çl pkÅ vksj ty fudkl h cçaku] i h, p vksj v,DI htU Lrj eki] jkskadsfu; a.k dsrjhdka dh tkp dsckjseavufHkK FkA vfeckk mUjknkrvka 98 çfr'kr½ dksrkyk dh feèh dh mRi kn drk] i ; klr foi .ku pSykadh deh] mfpr çf'k{k.k@tkf[ke ; k=kvkadh deh vksj i ; klr foi .ku pSykadh deh ds: i eadÅ ckekvvka dk l keuk djuk iM+jgk FkA eNyh ikyu fo'kskK }kj , d v,uykbu ohm; ks0; k[; ku fn; k x; k FkA ; g ns[kk x; k fd 0; k[; ku l pusdsckn Kku eaof) gÅ FkA

**"kn dèh%çHko'khyrk] eNyh fd l ku] Kku] v,uykbu ohm; ks0; k[; kuA**

Bhartiya Krishi Anushandhan Patrika, 35(4): 226-230

**Empowerment of fish farmers through Online Lecture****Arpita Sharma\*, Adita Sharma and Naresh Kumar Kandpal**

Department of Agricultural Communication, College of Agriculture, Govind Ballabh Pant University of Agriculture and Technology, Pantnagar-263 153, Uttarakhand, India.

Received: December 2020

Accepted: January 2021

**ABSTRACT**

This study was conducted on 100 Fish Farmers of Nazeemabad village of Udham Singh Nagar District of Uttarakhand. Need was assessed through survey schedule. On the basis of need assessment, an online lecture was delivered. After that knowledge was assessed. It was reported that majority of fish farmers were unaware about techniques for checking phytoplankton and zooplankton, weed management in pond, Irrigation and drainage management, pH and Oxygen level measurement, ways of diseases control. Majority of respondents (98 per cent) were facing many constraints as productivity of soils of the pond, Lack of adequate marketing channels, Lack of proper training/exposure visits and lack of adequate marketing channels. An online video lecture was delivered by fisheries expert. It was observed that knowledge was increased after listening a lecture.

**Key words:** Effectiveness, Fish farmers, Knowledge, Online video lecture.**ÀLHkouk**

beNyh vr; fekd i kVd] l e i kkd rrok] [kfutlk vko'; d QVh , fl M vksj çk/hu ea l e) gS vksj vkgkj ds fy, , d el; oku ij d dk çfrufekRo djrk gS vl; Fk vko'; d foVfeku vksj [kfutka dh deh gS ¼ Q, vksj 2007½2017&18 dsnkj ku Hkkjr eadY eNyh mRi knu 12-60 fefy; u ehvVd Vu Fk ft l ea l syxHkx 65 çfr'kr varnèkh; {ks= l sFk vksj dy mRi knu dk yxHkx 50 çfr'kr

l l—fr eRL; ikyu l sgS vksj xfr grk gA eNyh mRi knu oSod Lrj ij yxHkx 6-3 çfr'kr dk ; kxnu nsr gA —f'k txr ½2019½ ds vuq kj l tkovh eNyh l l—fr vksj mPp el; dh eNyh dh [krh gky dsfnuka ea egRo çklr dj jgh gA eNyh vksj eNyh mRi kn orèku ea Hkkjr ds—f'k fu; klr ea l cl scM+l eg ds: i eamHkjs gS ek=k dsekeysea10-5 yk[k Vu vksj el; ea33]442 djkm+ gA ¼ kekZ vksj 'kek] 2016½

\*Corresponding author's E-mail: sharmaarpita615@gmail.com

¹—f'k l pkj foHkx] —f'k egkfo |ky;| th ch ;w ,s vksj Vh] iruxj&amp;263 153] mrjk[k.M] Hkkjra ²eRL; l d kku cçaku foHkx] d,yst v,Q fQ'kjht] &lt;kyh] vksj i h l h , s; j fcgkjA

³gntarku] mUjk[kM

¹Department of Agricultural Communication, College of Agriculture, GBPUA and T, Pantnagar-263 153, Uttarakhand, India.²Department of Fisheries Resource management, College of Fisheries, Dholi, RPCAU, Bihar. ³Hindusthan, Uttarakhand.

vkun 1/2019½ uscrk; k fd 2018 eaHkkjr eady  
eNyh mRiknu 6-24 fefy; u ehV'd Vu ¼ e, evh½ vupfur  
gš tksfd dšp j vlg dYpj nkskal kral snš eady eNyh  
mRiknu dsn&frgkÅ dsdjhc gÅ eNyh ikyu {ks= eaof)  
e[; : i l sehBs i kuh dstyh; —f'k {ks= l sgkrh gš D; kld  
l eph fQfu'k l l—fr dk cMsi škusij vH; kl fd; k tkrk  
gÅ Hkkjr ea[kir gkusokysdy i'kqčk/ku dk yxHkx 12-8  
čfr'kr rktis i kuh dh eNyh l svkrk gÅ 'kelž, o vU; 1/2012½

Hkkjr eaeNyh fdl ku dĀ uĀ rduhdka dscjseavufHkK  
Fks vlg eRL; ikyu dscjseav|ru tkudkj h  
j [krsFkA ¼ kelž vlg 'kelž 2011½ bl čdkj] eNyh fdl kuka  
dh t: jrkadk vè; ; u djusth rRdky vko'; drk gÅ  
oržku vuđ āku vè; ; u fuEufyf[kr mīš; kads l kFk cuk; k  
x; k gš ¼ ¼ eNyh fdl kuka dh t: jrkadk vè; ; u djuka  
¼, ½ eNyh fdl kuka }kjk l keuk dh tkusokyh čekkk dk  
vè; ; u djuka ¼, ½ v, uykbu 0; k[; ku dsekè; e l seNyh  
dh f'k{k čnku djuka ¼ ½ v, uykbu 0; k[; ku dh  
čHkko'khyrk dk vè; ; u djustsfy, A

### vuđ āku i) fr

mekečl g uxj ftysds#æij čy, d l sukud l kxj čak ds  
i kl uthekcn xlp l sdy 100 eNyh fdl kuka dk p; u  
fd; k x; k FkA l ošk. k vuđ ph dsekè; e l sMv/k, d= fd; k  
x; k FkA mŭjnkrvk adk p; u mīš; i wZuenuk fofek dsekè; e  
l sfd; k x; k FkA vko'; drk vkekčjr {ks= ea eRL; ošk fud  
}kjk, d v, uykbu ohM; ks 0; k[; ku fn; k x; k FkA

### ifj. ke vlg foopuk

rkfydk 1 eaeNyh fdl kuka dh t: jrkal sl æfkr  
vkadMka dks n'kž k x; k gÅ

### ¼ ½ rkyk rškj djuk

rkfydk f ean'kž k x; k gšfd cgr l seNyh —'kd 1/8  
čfr'kr ¼ QkbVkykdVu vlg tksykadVu dh tlp djusth  
rduhd l svufHkK Fkš rkyk ea[kji rokj ččaku] čl pkĀ  
vlg ty fudkl h ččaku dscn rkyk eapuk vlg mojd  
ččaku 1/9 čfr'kr ½ vlg 'kM dh rš kjh 1/6 čfr'kr ½ dscjs  
eacgr l s—'kd vufHkK FkA l Hk mŭjnkrvk l čth dh [krh  
dsfy, rkyk&Mk b dsmi; ks dscjs eavufHkK FkA  
dy 89 čfr'kr mŭjnkrvk i kuh dh xgjĀ eki dscjseavufHkK FkA

¼ h½ čht] čtkfr; ka vlg muds LV, čdx ?kuRo  
mŭjnkrvka eal svfekdkā vPNh xqkoŭk okysLoLFk čht  
1/8 čfr'kr ½ dh igpku dscjs eavufHkK Fkš mi; č  
vkdlj dscht 1/7 čfr'kr ¼ xqkoŭk dscht dk p; u vlg

l čth dk čtkjki .k 1/7 čfr'kr ½ dscjseavufHkK cgr l syks  
vufHkK FkA dy 96 čfr'kr mŭjnkrvk čht l fui Vusvlg  
ifjogu dscjseavufHkK Fkš bl dscn čekfj; ka l seš  
čht vlg čtkfr; ka 1/4 čfr'kr ½ dk p; u vlg eNyh dh  
čtkfr; kadk LV, d ?kuRo 1/3 čfr'kr ½ dscjseavufHkK FkA

### ¼ h½ i kuh dh xqkoŭk ččaku

bl dsrgr] mŭjnkrvka 1/7 čfr'kr ½ uscrk; k fd osi h, p  
vlg v, DI htu Lrj eki , oe ih, p vlg v, DI htu Lrj  
eki 1/5 čfr'kr ½ dscjseavutku FkA

### ¼ h½ QM vlg mojd ččaku

mŭjnkrvka dh cMh l ā; k ¼ ¼ čfr'kr ½ uscrk; k fd os  
QhM, flydšku dsmfpr l e; dscjseavutku Fkš bl ds  
cn osv, Q, lyhdsku ¼ ¼ čfr'kr ½ dscjseavutku FkA  
mojdka dh [kjkd 1/0 čfr'kr ½ dscn ty fofue; ds  
rjhdka dscjseady 91 čfr'kr mŭjnkrvk vufHkK FkA dy  
88 čfr'kr mŭjnkrvk bl rjg dsmoj dka dscjseavutku  
Fkš bl dscn 85 čfr'kr mŭjnkrvka usQhM vkonu ds  
mfpr l e; dscjseavufHkK FkA

### ¼ ½ jks fu; a. k

mŭjnkrvka dh cMh l ā; k ¼ ¼ čfr'kr ½ dhVuk'kd@  
dhVuk'kd vlg, Dok&MXI ¼ ¼ čfr'kr ½ dk mi; ks djust  
dsrjhd dscn jkska dsfu; a. k l svutku FkA dy 93  
čfr'kr čekfj; ka dh jkdFke dsmi; k; ka l svufHkK Fkš  
bl dscn čekfj; kadh igpku 1/2 čfr'kr ½ gĀA

### ¼ Q½ mRikn dh dVĀ] eNyh l j{k.k vlg foi.ku

mŭjnkrvka dh cMh l ā; k ¼ < čfr'kr ¼ vMds l xg dh  
rduhdka dscjs eavufHkK Fkš bl dscn l j{k.k ¼ ½  
čfr'kr ½ dk l e; FkA dy 95 čfr'kr mŭjnkrvk QI y  
dVĀ dsrjhdka 1/5 čfr'kr ½ dscjseavutku Fkš ml ds  
cn dVĀ dsl e; 1/2 čfr'kr ½ dscjseavufHkK FkA dy  
89 čfr'kr mŭjnkrvk l j{k.k dh rduhdka l svufHkK FkA

### ¼ h½ vU;

mŭjnkrvka dh vfekdkā 1/7 čfr'kr ½ eNyh dsi kš. k vlg  
f[kyus dscjseavutku Fkš bl dscn, dh—r i'kqku  
vlg eNyh ikyu 1/5 čfr'kr ½ dscjseavutku FkA eNyh  
jks dsfunku vlg jkdFke 1/1 čfr'kr ½ dscn dy 93  
čfr'kr i s dYpj dscjseavutku FkA

### eNyh fdl kuka ds l keus vMpu

rkfydk 2 eaeNyh l j{kjk l keuk dh xĀ čekkvka dks n'kž k  
x; k gÅ vfekdkā mŭjnkrvka 1/8 čfr'kr ½ dks rkyk dh  
feēh dh mRi kndrk ds: i eadĀ čekkvka dk l keuk djuk  
i M+ jgk Fk] i; kZr foi.ku pšyka dh deh] mfpr

rkfydk 1: eNyh fdl kuka dk vkdyu vko' ; d gA

Ø-I a	Jsh	vutku	voş j
,	rkyk rş kj djuk cht HkMkj l sigys rkyk dh rş kjh rkyk ea [kj i rokj çcaku , d rkyk ea puk vlg mojd çcaku ikuh dh xgjkÅ eki OkbVkykdVu vlg tkykdVu dh tlp dh rduld l çth dh [kth dsfy, rkyk&Mkhd dk mi ; kx çl pkÅ vlg ty fudkl h çcaku 'kM dh rş kjh	78 178½ 98 198½ 97 197½ 89 189½ 98 198½ 99 199½ 98 198½ 96 196½	22 122½ 2 12½ 3 13½ 11 11½ 2 12½ 1 11½ 2 12½ 4 14½
ch	cht] çtkfr; ka vlg muds LV, çdx ?kuRo vPNh xqkoÜkk okys LoLFk cht dh igpku cht dk mi ; ç vldkj chtka dh çtkfr; ka vkÅ , Q , Q dsfy, ?Vdka dk p; u jks ea cht vlg çtkfr; ka dk p; u eNyh dh çtkfr; ka dh igpku eNyh dh çtkfr; ka dk LV, çdx ?kuRo l çth dh xqkoÜkk dscht vlg vadj dk p; u cht gMcyx vlg ifjogu	98 198½ 97 197½ 89 189½ 80 180½ 94 194½ 95 195½ 93 193½ 97 197½ 96 196½	2 12½ 3 13½ 11 11½ 20 120½ 6 16½ 5 15½ 7 17½ 3 13½ 4 14½
l h	ty xqkoÜkk çcaku ih, p vlg v, DI itu Lrj eki ikuh dsrkieku dsb"Vre Lrj dk eki u	97 197½ 95 195½	3 13½ 5 15½
Mh	QHM vlg mojd çcaku QHM vkonu dh fofek QHM vkonu dk mfpr l e; mojdka dh fdLe mojdka dh [kjkd ty fofue; dsrjhds QHM vkonu dk rjhdk QHM vkonu dk mfpr l e;	83 183½ 85 185½ 88 188½ 90 190½ 91 191½ 94 194½ 95 195½	17 117½ 15 115½ 12 112½ 10 110½ 9 19½ 6 16½ 5 15½
Å	jks fu; æ. k chekfj; ka dh igpku jkska dh jkdFkke ds mi k; jks fu; æ. k dsrjhds dhVuk' kdk@ dhVuk' kdk vlg , Dok&MXI dk mi ; kx djus dk rjhdk	92 192½ 93 193½ 95 195½ 94 194½	8 18½ 7 17½ 5 15½ 6 16½
, Q	mRi kn dh dVkÅ] eNyh l j {k. k vlg foi .ku dVkÅ dk l e; dVkÅ dsrjhds ifjj {k. k dk l e; l j {k. k dh rduld vMs l xg dh rduld çkjdkd foi .ku ç. kkyh dsrjhds	92 192½ 95 195½ 97 197½ 89 189½ 99 199½ 96 196½	8 18½ 5 15½ 3 13½ 11 111½ 1 11½ 4 14½
th	, dh—r i 'kaku vlg eNyh ikyu eNyh dk i ksk. k vlg Hk {k. k , dh—r pkoy&eNyh dh [kth i su dYpj eNyh jks funku vlg jkdFkke	95 195½ 97 197½ 94 194½ 93 193½	5 15½ 3 13½ 6 16½ 7 17½

**rkydk 2:** eNyh fdl kuka }kjk l keuk dh tkusokyh ckekk, A

Ø-l a	çfrclæk	mùkj nkrk	çfr'kr
1	xqkoùkk okyseNyh dscht dh xş mi yCekrk	95	95
2	rkyk dh feeh dh mRi kn drk	98	98
3	rkyk eaçk—frd pkjk dh deh	95	95
4	eNfy; ka dk jks	93	93
5	fo"kkärk	96	96
6	mPp Je ykxr	53	53
7	?kj l snjh	78	78
8	ck<+	80	80
9	foi .ku ea deh l sdh l fpekk feyrh gš	89	89
10	mRi kn dh mPp i fjkfkyVh	96	96
11	fo'ky çfr; kšxrk	95	95
12	eNfy; ka dh vl ær vki ñr	87	87
13	HkMkj .k dh l fpekk dh deh	88	88
14	mPp l kšckth vş Ø; 'kfä dh deh	89	89
15	mPp eV; ea mrkj & p<ko	97	97
16	cktkj ; kMzd dh vuq; çä flFkr	86	86
17	vki ñr dsfy, vl; jkT; ij fuHkjrk	95	95
18	çl ðdj .k bdkÄ dh deh	97	97
19	eRL; ikyu ; kstukvads l æk ea Kku @ tkx: drk dk vHkko	74	74
20	i ; klr foi .ku pšykd dh deh	98	98
21	mfr çf'k{k.k @ tk[ke dk vHkko	96	96
22	l ðFkxr __.k dh deh	76	76
23	chek dojst dh xş & mi yCekrk	89	89
24	foLrkj l økvkædk vHkko	87	87

çf'k{k.k@, DI i kstj fofTV dh deh vş çl ðdj .k bdkÄ dsKku dh deh dsckn i ; klr foi .ku pšykd dh deh 197 çfr'kr½ l eL; kvks dk l keuk djuk i Mrk gSA dy 95 çfr'kr mùkj nkrkvka dks xqkoùkk okyseNyh dscht dh deh] vki ñr dsfy, mls jkT; ij fuHkjrk vş cMh çfrLi ækz 195 çfr'kr½ dh vuqyCekrk dk l keuk djuk i M+ jgk FkA çl ðdj .k bdkÄ dh deh dsckjs ea dy 97 çfr'kr mùkj nkrkvuffHk FkA 89 çfr'kr mùkj nkrkvka dks chck dojst dh vuqyCekrk vş foLrkj l økvkædh deh 197 çfr'kr½ ds: i ea ckekkvka dk l keuk djuk i M+ jgk FkA 53 çfr'kr mùkj nkrkvka dks mPp Je ykxr ds: i ea ckekk dk l keuk djuk i M+ jgk FkA

**v,uykbu ohfM; ks 0; k[; ku dh çHkko'khyrk**

eNyh ikyu ds l æk ea eNyh fdl kuka dh t: jrka dk vkdyu djsdckn eNyh ikyu dsfy, , d v,uykbu ohfM; ks 0; k[; ku fn; k x; k Fkk ftl eadN vko'; d {ts=ka dsckjseatlx: d] l fpr vş f'kf{kr fd; k x; k Fkk ftl ea vfekdka mùkj nkrk dÄ i ggyvka l svutku FkA

**rkydk 3** v,uykbu ohfM; ks 0; k[; ku dh çHkko'khyrkA

çh V&V Ldkj	lkkLV V&V Ldkj	ykhk
9-0	40-0	31-0

rkydk 3 l sl æfkr vkæMka l sirk pyk fd eNyh fdl kuka dks eNyh dh [krh l sl æfkr fofHklu i ggyvka dsckjseatlxHkd Kku Fkk] tks fuEu Ldkj }kjk bñxr fd; k x; k gS tksfd i mZ i jh{k.k ea 9 gA mùkj nkrk dsKku ea cgr l ækkj mudh Hkxhnrkjh dsdkj .k Li "V Fkk D; kkd mudh i jh{k dsckn dk Ldkj 9 l s40 rd c<+x; k FkA Kku ea ykhk 31 dh c<krjh gÅA l exz—f"Vdsk l ş ; g fu"d"l fudkyk tk l drk gSfd v,uykbu ohfM; ks 0; k[; ku ea Hkx yus dsckn mùkj nkrkvka dks mPp Kku Ldkj feyKA ; g i k; k x; k fd v,uykbu ohfM; ks 0; k[; ku Kku ea ykhk dh vofek ea çHkkoH FkA

**fu"d"l**

mi jkæ ppkz l ş ; g fu"d"l fudkyk tk l drk gSfd ylx dÄ i ggyvka l svutku FkA vş dÄ ckekkvka dk l keuk dj

jgs FkA bl ekeyseal pūk l pkj mi dj.k dsekè; e l s  
 çl kfjr tkudkjh eNyh fdl kukadsKku dsLrj dks<kus  
 dsfy, çHkkoh gks l drh gA oržku 'kksk tkp v,uykbu  
 0; k[; ku dsekè; e l seNyh fdl kukadsKku dsLrj dks  
 c<kusdk , d ç; kl FkA ifj.kkekal sir k pyk fd v,uykbu  
 ohfM; ks 0; k[; ku Kku ea ykHk dh vofek ea çHkkoh FkA

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